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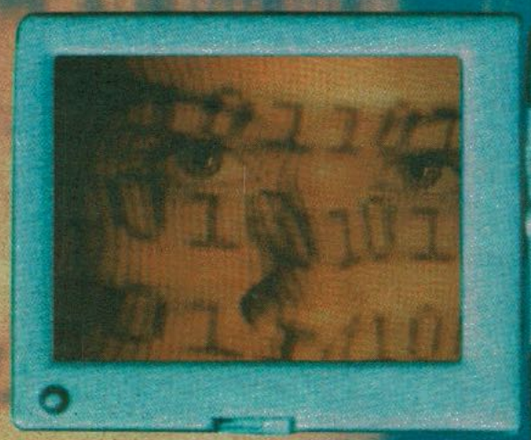

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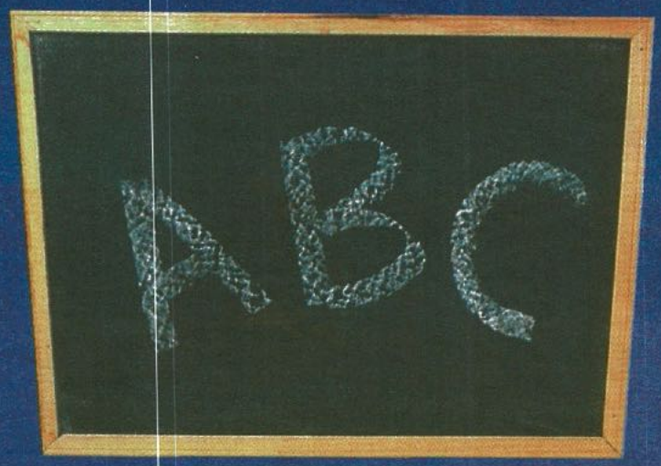

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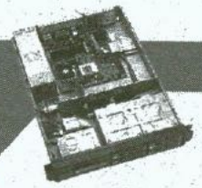

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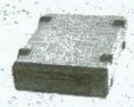

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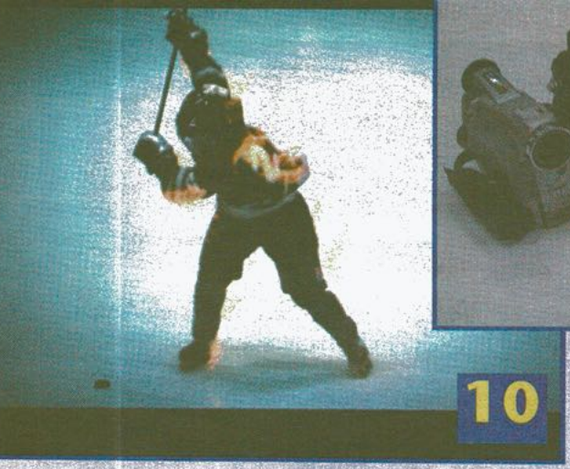

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Take that digital camera of yours and go on a shooting spree.
See page 8 for Shooting Spree Contest details.
Video photography more your thing? Then look to page 70 for our Digital Video Contest.
Musically inclined? See page 63 for details on our Cool Tunes Contest. Good Luck!

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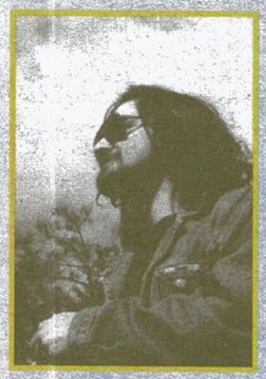
From the editor



Before the dot com meltdown, convergence was the big word that was bandied around every time computers or electronic equipment were mentioned.

Many believed that convergence was just putting a PC in all sorts of objects and making everything Internet ready. There were reports of Internet capable appliances that will modernize the kitchen more than was ever imagined in the 1950s. Although the talk has died down greatly since the meltdown the industry and thinking has not. There are Internet capable appliances in development and even available for your kitchen.

Many of these appliances were shown at last January's Consumer Electronics Show (CES). Who knows how quickly people will rush out to buy an Internet ready fridge or a wired microwave oven that cools the food during the day and will start heating your meal when you tell it to through a Web connection?

The real convergence items were on display at this year's Electronic Entertainment Expo (E3). These items were the Internet ready Microsoft Xbox and Sony PlayStation2. "Big deal," you might be tempted to say, "there have been online games for years on the PC." Sure there have – but you rarely played them in your living room on your TV. The advent of Internet capable game consoles will be the first successful beachhead of the Internet in the living room.

Various companies that offered the Web on TV tried and fizzled out. Internet radio is a PC only phenomenon except for the true diehard.

Online gaming will be successful and fundamentally change the way we are entertained. When coming home from school and plopping down on the couch in front of the tube, you will have the choices of watching television or taking out your frustrations in a first-person shooter game playing against other people.

If shooting ain't your thing, then how about joining a foursome for a golf game on any course in the world? There is always space and there are no green fees. (Except what you pay for the online experience of course.)

Convergence is coming. Games should not be looked upon as games anymore. They are entertainment. This industry is bigger than Hollywood in terms of revenue and profit.

While many readers will scoff at the notion, online gaming will be the only type of interactive TV that is entertaining. Maybe not this year or the next, but the Internet will make its way to your television eventually and it will be through online gaming.

Nestor Gula can be reached by e-mailing nestor@tcp.ca ◆

Reader Feedback

SCSI devices, may they find better homes

My condolences to the editor, Nestor Gula, for his troubles with SCSI devices. I was surprised he had them while using a Mac, though. I had a devil of a time getting them to work with my PC – that is why I eventually sold them. Come to think of it, I sold them at a garage sale. Perhaps it was you who bought them off me.

George Abrams

Tech on the road

Alan Thwaits' article on taking technology on a cycling road trip ("The well-connected cyclist," *TC! June*) was interesting, and I'm not surprised to find the number of technological devices on a cycling brevet is small. However, I am surprised that the wireless devices he sports during his rides function very well at all outside major cities.

During many road trips, I've tried to use my cellular phone and I find the coverage (at least in Ontario – but probably in other provinces, as well) to be very poor. Cell phones work great if you're in Toronto or Ottawa or even North Bay, but if you're on the road between any of these cities, you're generally out of luck.

This is actually the time you need these devices most. If your vehicle breaks down, how do you call a tow truck if there's no coverage?

Jeff Marlow

Who took the "share" out of shareware?

Like Kevin Linfield, I remember a time when shareware meant "try before you buy" and the applications were complete programs that constantly begged you to register. And like most people, I rarely registered a program.

However, I remember at least one shareware game that was incomplete and had features that were unlocked when you sent the author US$15. It was also one of the first popular online games (played through bulletin board systems). The game was called *VGA Planets*, and the version of the game released in the mid-1990s still has a huge following among turn-based strategy game fans. It was the only piece of shareware I ever registered because it had the quality of a commercially-released game, which was a rarity in shareware applications of the time.

Albert Stone

The Editor *Toronto Computes!*
625 Church St., Suite 600, Toronto, ON M4Y 2G1
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Letter of the Month

For his letter this month, George Abrams wins a copy of *Battle Realms* from Liquid Entertainment. *Battle Realms* is a real-time strategy game that can be played as a single-player campaign or on a LAN or Internet connection with up to eight players at a time.

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Managing Editor
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Contributing Editors
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IT Department
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Marketing Manager
Natalia Nossovskaia, *natalia_nossovskaia@tcp.ca*
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Advertising Sales Manager
Rob Crawford, *rob@tcp.ca*
Advertising Sales *ansales@tcp.ca*
John Chiasson, Scott Piccolo, Ralph Ventriglia
Advertising Coordinators
Donna Goddard, *donna@tcp.ca*, Karen Samuels, *karen_samuels@tcp.ca*
Classified Sales
Donna Eng, *classified@tcp.ca*
Circulation
Tracy Magee-Graham
Distribution
Gabriella Dan

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Effects aside, film still rules commercials

By SAMSON OKALOW

The past decade has seen computing technology ramp up so quickly that today people use computers at home that are far more powerful than those in use by nuclear-armed military organizations just 20 years ago. The same is true for the technology that brings you that other culturally omnipresent artifact – the television commercial. Even in this everyday realm, digital production, otherwise known as video, is heralding a revolution extending well beyond blockbuster special effects. However, for all its merits – flexibility, accessibility and affordability – the technology isn't yet ready for prime time, and auteurs and tradespeople alike continue to rely on film.

Ramping up the effects

Digital video technology has traditionally been limited to three purposes – for transfer during post-production; the creation of obvious special effects (composed of three distinct aspects: 3D animation, digital matte painting and compositing) such as animation; and for shooting, mainly by independent filmmakers with limited budgets or, in the case of other commercial productions, for particular kinds of television spots like lower-end retail. But today, with the raw processing horsepower available to the production houses that put together the commercials we see every day, virtually all ads feature some "less obvious" special effects, whether it's shooting a winter scene in the summer and adding fake breath coming out of people's mouths or touching up a product using digital manipulation.

"It used to be that when we did computer graphics for commercials we'd do an entirely animated commercial that was sort of a separate thing, or the five-second product demo with the blue pee that falls on the diaper," says Sylvain Taillon, executive producer at Toronto-based Topix, one of Canada's top commercial production houses. He says that what's happened in the last seven years are improvements in tools and rendering technology that allow producers to go well beyond that as standard operating procedure. "Now it's very easy for us to create something in a commercial that is completely manipulated, completely manufactured, and you can't tell – cars, people, fur, things like that."

Topix is the outfit behind the recent Gatorade commercial featuring Montreal Canadiens goaltender Jose Theodore battling an opponent – and a puck – engulfed in flame. How did they do it? Well, no one was actually set on fire, though Taillon deadpans that "the agency looked into it." First, a skater was shot handling the puck. In a separate shoot, real fire was filmed against a black background. That image was then sampled, tracked and attached to the skater's body in post-production. This technique involved separately attaching as many as 50 layers of bits of flame to the skater's body so that it would naturally track with his skate, elbow, stick, etc. The puck, including sparks, was created in 3D animation and then the image of a smoldering puck was yet another image, but this time an animated painting. Then the entire sequence was "composited" using Discreet's *Inferno* machine, best described in layman's terms as *Photoshop* for moving pictures.

Command Post & Transfer president Michael Flanigan says virtually everything his company does is created with digital effects. Among varied credits, this large Toronto production house's Toybox division has done the Labatt Blue commercial featuring the bottle falling to the bottom of the lake and the Toyota "Matrix" commercial airing on TV and in theatres. In the latter, an animated car spins and has its skin "peeled" off, at the end of which the real-life car is visible.

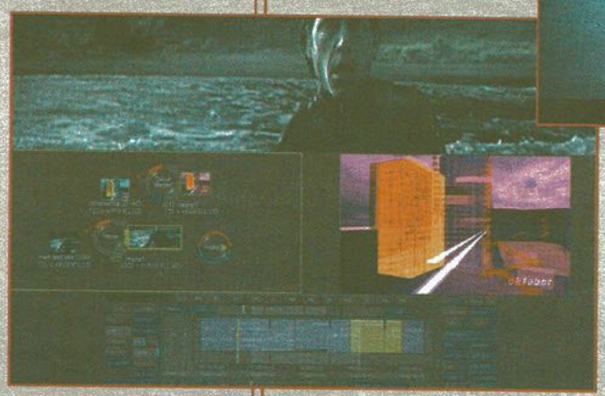

Photo Courtesy: oktober

Post-production for the 30-second spot was completed in about five days with another similar stretch of time for the animation work.

Video versus film: Bottom line impact

The digital tools of the trade used to produce such works run the gamut of off-the-shelf software such as *3D Studio Max*, *Photoshop* and *Maya* to darn expensive stuff like SoftImage's *XSI* and Discreet's *Inferno*, the latter a custom-designed solution going for US$500,000. But even common software like *Photoshop* is rather pricey and, added to the exorbitant cost of film, shooting a film or commercial and then producing it is expensive however you slice it.

Enter video. Far less expensive than film, the introduction of high definition video was thought to herald a respite for clients, ad agencies and commercial production houses looking to cut costs, as well as affording "the little guy" the opportunity to put something up on the big (or little) screen. While there's certainly been an explosion in video amongst indie filmmakers and home enthusiasts, the reception has been decidedly muted in the commercial production world. The fact of the matter remains that the vast majority of the commercials you see continue to be shot and produced on film.

The biggest reason for this is actually cultural. North American audiences prefer the dreamy, larger-than-life look of film over the hyper-real immediacy of video. The task for video and digital production has therefore become to attempt to mimic the look of film while shooting on video. Industry people say it can't be done.

"I think it's almost next to impossible to get the celluloid quality in my mind," says Joanne McConnell, an editor at Toronto-based The Players Film Company. "There are properties in film (grain, analogue quality, etc.) that I think are exclusive to film – you're going to get close [with video] but you're not going to quite get it."

Flanigan agrees: "I don't believe anything can reliably make video look like film."

Not only that but he challenges the very idea that shooting to video is more efficient in any way. He says that except for certain types of production, "There really isn't that big a cost savings." Back end work such as colour correction and data management wipes out any advantage of going all-digital. "The idea that you save tons and tons of dough working in an HD format isn't really true; the camera packages are considerably more expensive, the setup times tend to take a little bit longer because video capture does not have the dynamic range that film does. ... Also what tends to happen with video is they usually shoot two or three times as much as they would if it was a film shoot because they look at the cassette and they say, 'Well, this thing only cost $45. Flip another one in.'"

Paul McClimond, associate creative director at ad agency Sharpe Blackmore Euro RSCG, says the advertising industry doesn't yet believe in the technology. "We always tend to look and see what's being done out there and we follow trends that happen in motion pictures and videos and we're picking up tidbits and information and techniques, but until that sort of becomes an everyday occurrence with the video portion – movies being done on video and so forth – I can see people sticking with film."

Despite product claims otherwise, even Discreet, maker of the celebrated *Inferno* compositing suite used by all the top production houses in the world, concedes that a trained and even not-so-trained eye may be able to tell the difference (George Lucas creations excepted) between film and video treated to look like film. "When we claim that it makes [video] look like [film], it means in the context that you have the ability to use grain and de-grain tools, you can apply different colour treatments so that you can in fact make materials shot on video look like film," explains Terry Ragan, Discreet's director of product marketing. "Is it exactly film? No. Even the digital cinema cameras of today don't have the same beauty or aesthetics as materials shot on originally sourced film."

Others, like The Players Film Company director of

continued on page 68

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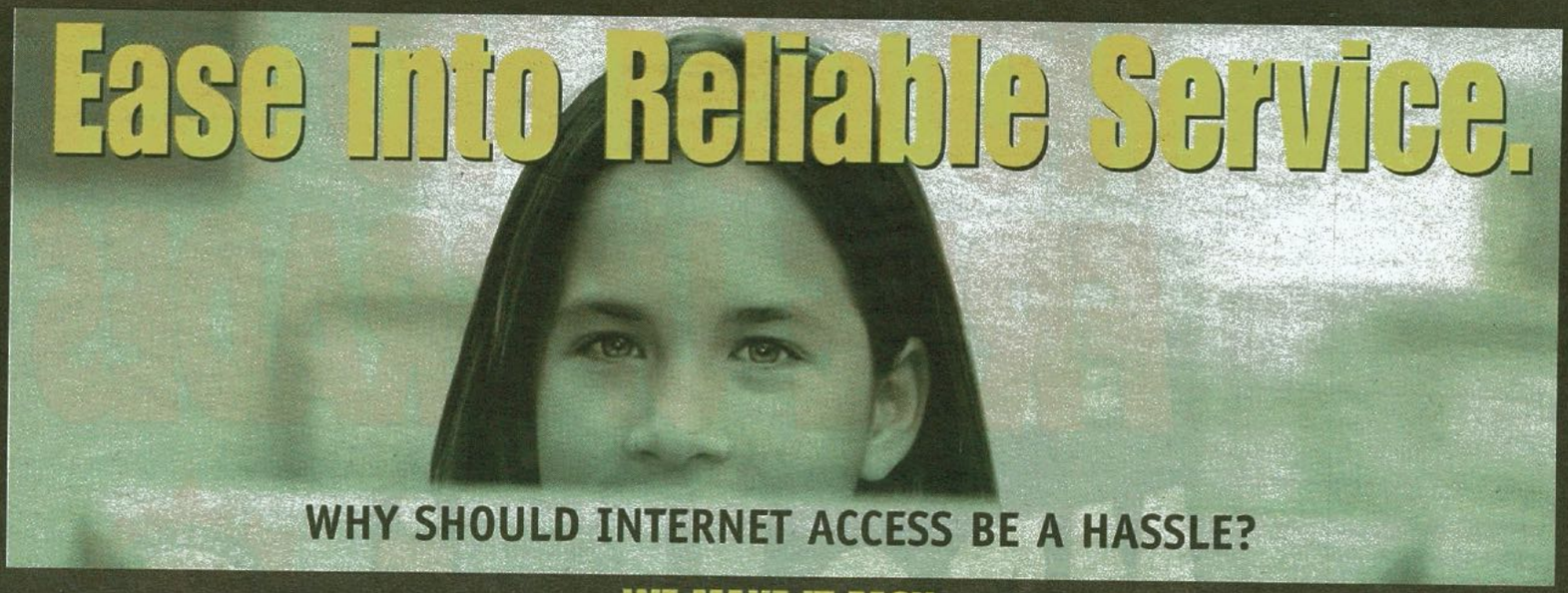

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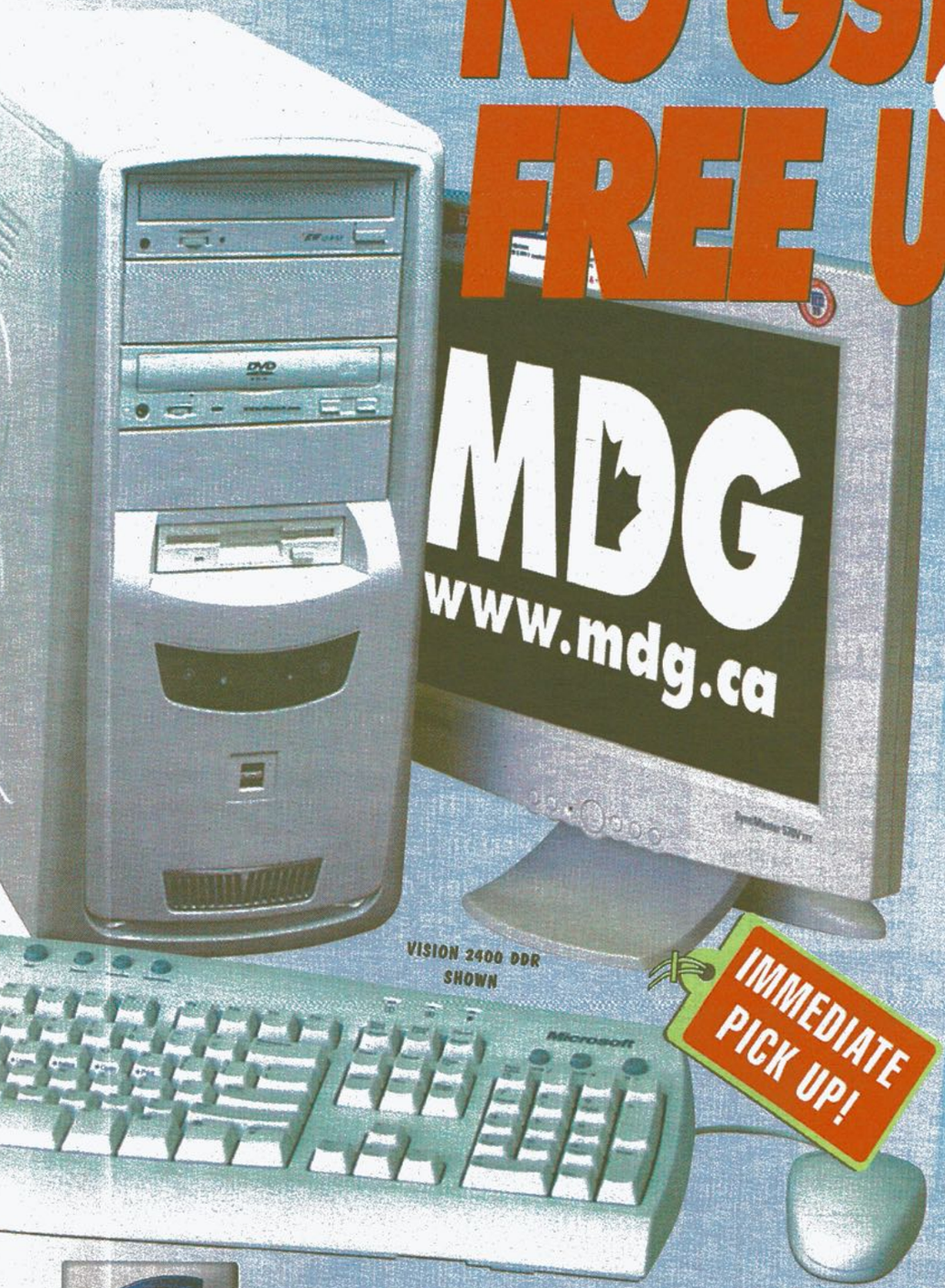

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FEATURE

Hold the latte (cancel the bus tour): We're surfing here

By MARA GULENS

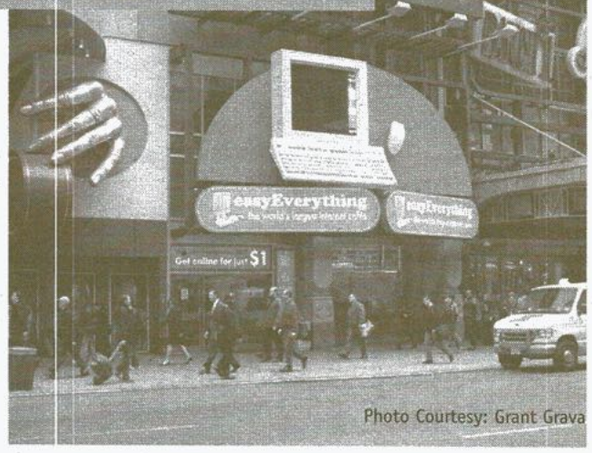

Photo Courtesy: Grant Grava

In the final scene of *The Beach*, Leonardo Di Caprio sits in a funky Internet café, sipping an exotic coffee ... and composing e-mail. While the global need to connect is stronger than ever, the café part is going bust – if what's going on at New York City's easyInternet Café (www.easyinternetcafe.com) heralds the future.

Picture you're a tourist just arrived in London, Paris or New York (also Amsterdam, Barcelona, Berlin, Brussels, Edinburgh, Glasgow, Madrid, Manchester, Munich and Rome). You're a backpacker in the middle of a three-month trip; a businessman whose PDA was just pinched; a student without a computer. All you want to do is check e-mail, read a few headlines, check out job opportunities ...

Or maybe you're none of the above. Perhaps you're an ordinary Torontonian who has just left Port Authority bus station and is making her way along 42nd street ... when you're suddenly dumbstruck by easyInternet Café, a massive technology venture, a McDonald's of the digital age making its way across the globe.

Let's start with the café part. Like the magazine section at Chapters, easyInternet Café has no funky armchairs to read print literature and no comfy nooks to sit back and chat with friends. Want a coffee? Grab a paper cup from the institutional counter up front.

Here's how the Internet part works: At the vending machine, insert cash and receive a slip of paper with your user name and id. The rate changes constantly: The time I was there US$1 was worth multiple logons for 70 minutes – good for three days.

At peak times you'll get less time online, but then – for a bit more, you can purchase 24-hour, seven day and 30-day *unmetered access passes*. The time I dropped in, 30-day unlimited access cost US$5. Can you say cheap?

With your handy access code in hand, choose a PC (Close to the window? Next to that good looking professor? As far back in the corner as possible?), log on and start surfing. New York City boasts 800 workstations – more than any other café in the world.

Andrew Croft, North American business development manager for easyInternet Café, says about 35,000 people pass through the doors of the NYC café every week. Gasp! That's about two million visitors per year. (easyInternet Cafes worldwide receive that many in a peak month.)

Each workstation has a little Web cam, though none were in use when I dropped by. You can put your computer on standby and post a virtual "this PC is taken" note if you to need to leave, but don't want someone taking your seat. Occasionally pop-ups remind users to secure valuables.

The row upon row of nameless surfers were involved in, well, everything that's possible on the Net. Users of all ages, shapes and sizes were playing games, reading news, writing notes in foreign languages and checking travel sites. Some were deep into racy chats – no wonder admittance after 11 p.m. is restricted to those 21 and up.

The place is no friendlier than box stores like Home Depot, the in-your-face orange signs don't add to the pleasing look of Madrid or Munich and our need to get connected when we're on vacation is downright weird. But we do, and for the foreseeable future – *this is probably the easiest way for us to do it.* ♦

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Five digital video cameras compared

By SEAN CARRUTHERS

Digital is everywhere – digital audio, digital photography and digital video are just three of the technologies that have grabbed attention in the consumer space. Digital video cameras have been on the market for a couple of years now, and they get better and smaller with each passing month. This month we take a look at some of the newest DV cameras available between $1,000 and $1,500.

Though there was a bit of a format clash when digital video debuted, it seems that most tape-based DV cameras have settled on the tiny MiniDV format as the digital video cassette of choice. That's not the only format out there, though. There are still some Digital 8 cameras available, as well as some with other formats, like DVD or memory card. This month we've focused our attention on MiniDV for the tape-based cameras, though we've also taken a look at a couple of alternative non-tape-based formats, too.

A word about digital zoom ...

Digital video cameras typically come with two zoom ratings, one optical and one digital. It's important not to put too much stock in the second number, because realistically it's debatable just how useful you'll find it.

The optical zoom range of a camera refers to the actual mechanical range that the camera can deliver with lenses and servos, and most cameras have a perfectly good picture quality up to that limit. As soon as the camera switches over into the digital zoom range, all of the "zoom" is provided by resizing/interpolation of the image that's already there. That generally means a pretty ragged picture at the far end of the digital zoom range, and we've noticed that the picture quality is pretty fuzzy past about 50x digital zoom, no matter how good the camera is.

The other reason you probably shouldn't bother with this level of zoom is that once you get past 100x, the natural jerks/tremors of your hand are likely to cause the magnified image to jump around so severely that it's doubtful the image will be of any use, unless you're using a tripod.

A word about digital still captures ...

In addition to the record button, digital video cameras almost always feature a "photo" or "snapshot" button for capturing digital still photos. While this is a nice convenience, those who are thinking of using a DV camera to replace a standalone digital camera may want to think twice – the image quality isn't up to the standards of those standalones.

The reason is in the image sensor found inside the camera: DV cameras are set to capture at a resolution of 640x480 for motion video, and still captures are generally interpolated up from that resolution. What that means is, though the DV camera may claim a digital still resolution of one megapixel, the odds are that you'll always get a better picture from an actual one megapixel digital still camera.

On to the cameras!

MiniDV cameras

Canon ZR50MC
From: Canon Canada Inc.
www.canon.ca
Estimated price: $1,300

This MiniDV camera is a joy to use: It fits right into the palm of your hand, with a well-positioned hand strap and all the buttons you'll need to use within easy reach. The fact that it's so small and light only enhances the experience. Despite the tiny size, it's got some pretty impressive performance, including 22x optical zoom (up to 440x digital), night shooting mode, an image stabilizing system and a colour eyepiece viewfinder. The camera features a manual focus option, though trying to use the jog wheel at the same time you're trying to point the camera at something may be a bit awkward. Because the camera is so compact, the LCD viewfinder is only 2.5 inches.

The camera features both FireWire and USB 1.1 connections to the PC, though the USB connector (cable included) is only for transferring digital still pictures from the 8 MB MMC card. A fairly comprehensive remote control is included, making it easy to control the camera from a distance or to use it as a VCR from across the room. The biggest disappointment with this camera is the size of the digital still photos, at only 640x480, but since the other cameras are interpolating from that same resolution, you can always just upsize the images once you get them back to the PC anyhow.

Any issues with the manual focus or the smaller LCD screen aside, the Canon ZR50MC is an excellent choice for those looking for a DV camera: It's high-quality, small and reasonably inexpensive, which is a winning combination.

JVC GR-DVL820u
From: JVC Canada
www.jvc.ca
Estimated price: $1,299

JVC is right at the top of the video camera market, and the company obviously knows what it's doing if this MiniDV model is any indication. It's a solid little camera, with almost all the features you'd want on a DV camera – our only real gripe with it is the black-and-white eyepiece. Otherwise, it's top-notch, with a large LCD viewfinder, night mode, remote control and a good manual focus control. The 700x digital zoom is pretty much overkill, as all cameras tend to blur out beyond 50 or 100x digital anyhow.

The 820u comes with an 8 MB Multimedia Card for taking digital still shots, and you can transfer those captures back to the PC over the USB connection (as usual, digital video is transferred via FireWire). This camera has an excellent picture and has the best wide-angle shooting of the batch – a definite plus if you're planning to film yourself at arm's length. It also ships with a removable anti-glare hood around the lens.

While the black-and-white eyepiece keeps this one from being at the very top of our list this month, it's very close, and if you're planning to mostly use the LCD viewfinder, it's certainly still an excellent choice.

Sony Digital HandyCam DCR-TRV27
From: Sony Canada
www.sony.ca
Estimated price: $1,500

As DV cameras go, this certainly isn't the smallest we've looked at, but it's still a nicely compact (if slightly heavy) unit that fits well in the hand. The high-quality Zeiss lens can manage up to 10x optical zoom, and the camera is capable of 120x digital zoom. Both the eyepiece

continued on page 20

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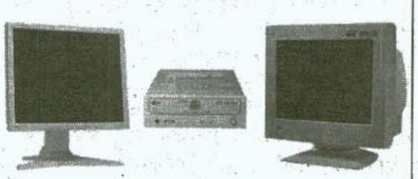

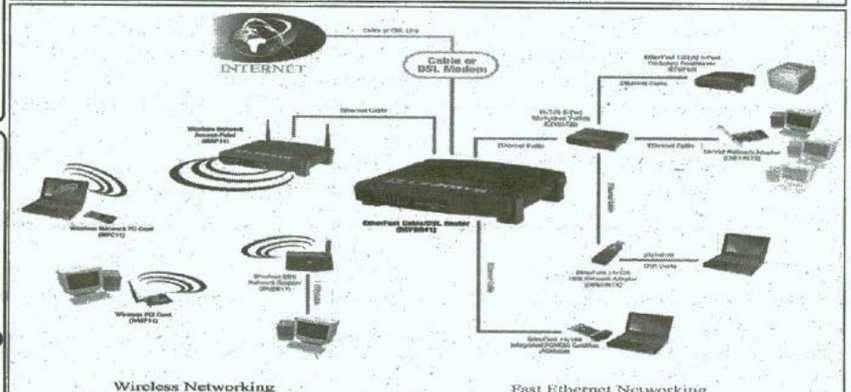

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Five digital video cameras
continued from page 16

and the 3.5-inch LCD are in full colour, which makes shooting very efficient, no matter which monitor you're using. For even better control over your image, the camera also lets you focus manually using the focus ring located around the lens.

As you'd expect from Sony, the camera has a number of bonus features, like Super NightShot, Super SteadyShot and the ability to stream video over the Internet when the camera is connected to your PC via USB. You can also use the enclosed 8 MB MemoryStick to record motion video at a maximum resolution of 320x240, if you don't want to record to tape (or have run out of space on your tape). Of course, you can also use the MemoryStick for one-megapixel still shots.

Though maybe a bit more expensive than some other DV cameras, all of the features on this one add up to a great package, even at this price point.

Other DV cameras

Hitachi DVD Cam DZ-MV230A
From: Hitachi Canada, Ltd.
www.hitachi.ca
Estimated price: $1,699

The Hitachi DVD Cam series is a very interesting hybrid of technologies, putting a mini DVD-R/DVD-RAM burner right inside the camera. The 8 cm DVD media comes in a cartridge that's familiar to those who have used DVD-RAM discs, except they're obviously smaller– in fact, they almost exactly resemble magneto-optical discs, except they're capable of holding up to 2.8 GB of data on double-sided media.

Media comes in two formats: DVD-R, which is one-sided (1.4 GB) write-once

media; and DVD-RAM, which is rewritable and allows you to perform some basic editing functions right on the camera itself. At top quality, you can get about 20 to 30 minutes per side, but you can stretch to about 60 minutes per side using a lower quality capture. The DVD Cam also uses the same media for digital still photos (unlike MiniDV, which uses a separate memory card) and can hold up to 1,998 photos on double-sided media.

The camera itself is a mixed bag: It takes longer to fire up than tape-based media (it takes a few seconds to access the DVD disc on startup), and the viewfinders are a bit of a letdown (the LCD is only 2.5 inches, which is a little small for a camera of this size, but the black-and-white eyepiece is even more disappointing). Those who are used to other MiniDV cameras will probably be put off by the camera's lack of FireWire connection to the PC and the fact that the USB 1.1 connection is optional, but that would be missing one of the strengths of the camera: You can take the DVD media out of the camera and cartridge and drop it into your computer's DVD drive, as long as the drive is compatible.

The negatives of the camera aren't negative enough to be outshined by the camera's benefits. Even though it takes a few seconds more to get the camera going, once you have it turned on and ready to go, you have instant scene access during playback because of the random-access nature of the media – no fast-forwarding or rewinding for 10 minutes to find the section you wanted. If you have the optional USB kit, you can use this when uploading, too, only uploading the scenes you want instead of having to capture the entire tape. The camera can also be used as a mastering device if you have the optional USB kit – upload the scenes you want, edit them together on the PC and then burn them back to a DVD-R on the camera, which you can then use on almost any component DVD player.

In the end, the DVD Cam certainly isn't the perfect solution, but it's definitely an innovative camera with a lot to recommend it.

	Canon ZR50MC	JVC GR-DVL820u	Sony DCR-TRV27	Hitachi DVD Cam DZ-MV230A	Panasonic e-wear SV-AV10U
Media format	MiniDV	MiniDV	MiniDV	DVD-RAM/DVD-R	MMC/SD
Connection to PC	FireWire, USB 1.1	FireWire, USB 1.1	FireWire, USB 1.1	USB 1.1	USB card reader
Optical zoom	22x	10x	10x	12x	none
Digital zoom	440x	700x	120x	240x	none
Night shooting mode	yes	yes	yes	low light, in menu	no
Eyepiece viewfinder	colour	B&W	colour	B&W	none
LCD viewfinder	2.5-inch colour	3.5-inch colour	3.5-inch colour	2.5-inch colour	2-inch colour
Microphone input	yes	no	yes	yes	no
Headphone jack	yes	no	yes	no	yes
A/V jack	yes	yes	yes	yes	no
S-Video in/out	yes	yes	yes	out only	no
Remote control	yes	yes	yes	yes	no
Digital still capability	640x480	1280x960	1152x864	1280x960	640x480
Digital still storage	MMC/SecureDigital	MMC/SecureDigital	MemoryStick	DVD	MMC/SD
Storage included	8MB MMC	8MB MMC	8MB	1.4GB DVD-R	64MB SD
Accessory shoe	yes	no	yes	yes	no
Size	58x99x144 mm	79x89x184 mm	76x93x163 mm	82x101x143 mm	28x50x87 mm
Weight	530 g	580 g	760 g	830 g	125 g
Warranty	one year	one year	one year	one year	one year
Price	$1,300	$1,299	$1,500	$1,699	$769

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www.panasonic.ca
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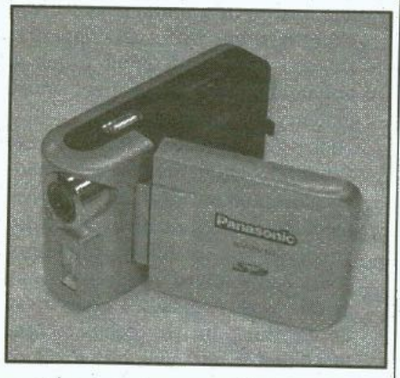

Panasonic's e-wear series of devices takes technology and shrinks it down to an extremely tiny format. Brand new – the e-wear Digital Video Camera, which is about 2 cm thick and almost exactly the size of a business card in the other two dimensions. It achieves this by eliminating tape-based media altogether in favour of an included 64 MB SecureDigital card and by swapping the video sensor for a CMOS instead of a CCD. Despite that, it can also take digital still photos (640x480) and play back MP3 files, too.

Motion video recording is done using MPEG-4 and ASF format. The picture quality is not what you'd get using a MiniDV solution (and can be a bit choppy) but at a fraction of the size of a tape-based player, you shouldn't be expecting professional quality anyhow. As a device oriented for fun, it performs well, though admittedly the price tag isn't quite so fun. The menu system for setup and playback is pretty basic (you have to manually select the orientation of the picture on the swiveling two-inch LCD screen, or to turn the flash on) but it gets the job done.

To get data from your e-wear recorder to your PC, you simply remove the SD card from the recorder, pop it into the included USB reader and transfer the images to your hard drive. (You use the same reader to transfer your MP3 files over to the device.) There's a small rechargeable battery inside the device, and it comes with an AC adapter so you can recharge between uses.

It's hard to imagine anyone using this camera for serious digital video recording (weddings, press conferences, for broadcast, etc.), but if you just want to capture short clips for Web playback, it's up to the task. It will be interesting to see how Panasonic refines this one in the future. ◆

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Adventures in digital video: The best of both worlds

By DANIELA STRANSCAK

Recently, a friend of mine was blown away by a workshop she'd attended. Being the avid computer animator she is, I wondered what mind-blowing new technology was getting her so hyped up.

Surprisingly, this buzz was not computer-related at all, but came from working with film and a stop motion camera at the Toronto Animated Image Society (TAIS).

If you're into animation, Toronto's a great place to be. Graduates from its animation programs are a sought-after bunch. Sheridan College, for example, has churned out an Academy Award winner and has heavyweight animation houses from all over North America courting its graduates.

What I found odd was that many schools have completely abandoned their film animation classes to work strictly with computers.

Granted, film is tricky to work with, as if animating isn't hard enough. Unexpected factors such as dust in the gate can ruin hours of work. On top of that, you're never sure of what results you'll get until you've gone through an expensive film developing process.

What could possibly be so enticing about all this bother when you can choose to work with a state-of-the-art computer that does things faster, at home? The thrill comes from the challenge of exploring a craft with patience and from its roots. I can't think of a photographer who has never gone through the painstaking process of learning to develop, process and fiddle with their own prints.

My friend's enthusiasm also had everything to do with a particular instructor, a Toronto artist by the name of Jonathan Amitay, whose passion for his craft is explosive, to put it mildly.

Intrigued to find out what (if anything) was lost to students who weren't exploring the traditional methods, and equally intrigued by the magic of this teacher, I arranged to meet Amitay in the heart of Toronto's creative district. A warm man with a crushing handshake, once I got him talking about animation, he was more than open to sharing his experiences.

Coming from an arts background, Jonathan Amitay got his first shot at animation after borrowing an 8mm camera from a neighbour. Not sure what to do with his work, he contacted long-time host of *Saturday Night at the Movies* and film expert,

Elwy Yost. Yost's encouragement motivated Amitay to knock on many a TV network's door in hopes of landing a job. With no appointment, Jonathan found himself on CBC's doorstep, where they were so impressed, they asked him if he could start "next Monday."

He would continue at the CBC for 19 years, working on the *Canadian Sesame Street* team, where he was granted every artist's dream – complete creative control. These were the years when he produced award-winning pieces like *Oh Dad!* and *Nukie's Lullaby*, dedicating weeks of his own vacation time to creating them. Years later, when CBC decided to abandon all film animation work, he left under painful circumstances.

Amitay is well known for his stop motion art involving coloured sand and chains. He'd found a niche. He'd experimented with uncooperative strings, along with other forms of animation, and didn't have much patience for drawing.

Like many artists, Amitay worries about how animating using computers alone and not working with other mediums could potentially affect the creativity of budding animators. "Film really forced you to work in a certain way. Although I know I can do anything on the computer and just wipe it out, you just don't do that with film – you absolutely have to stay focused," he says.

He is by no means computer-phobic; he believes all tools can be combined. Amitay has owned a Mac since 1990 and has created an impressive body of politically charged Flash pieces on his G4.

"I can shoot the things I've done on digital. I can shoot the sand and chains," he says. "You can shoot something, come back, FireWire it, edit it, add soundtracks and have as many levels as you want. You have a whole studio on a table. Besides buying the software, there's no real cost. It just costs you your time."

But, he does believe that something intangible will be lost for those who've never experienced working with film, its techniques, its timing and its unpredictability. "It really forces you to be inventive," says Amitay, "Even if you have your storyboard, many times this 'thing' on the table is going to dictate to you something you haven't even thought about. Something will happen and it's so beautiful, you have to give it even just half a second. Your brain is just [growls], working all the time." ◆

more INFO

To sample some of Jonathan Amitay's Flash work, go to:
www.interlog.com/~jamitay/
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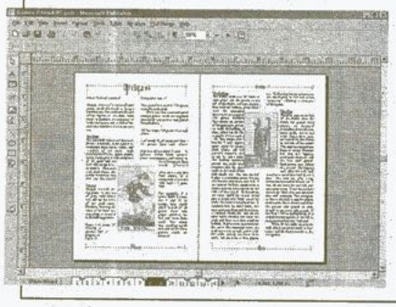
Communication message: Starting a zine

By TODD FISCHER

In the first installment of this column we introduced you to the world of zines, those self-published magazines that cover just about every topic available. Hopefully that got you muttering, "Gee, it doesn't sound too hard. I'd like to make a [insert topic] zine myself." You're right, it's not hard, and we'll go through a step-by-step process that will leave you with a professional looking publication that you'll be proud to show off.

Let's pick a topic. Make it anything you want. For sake of argument, let's say a Gillian Anderson fanzine.

The first thing you have to decide is layout, even before you think about what program to use. (The pros and cons of various publishing programs will be covered in the next column.) Look at some existing magazines or papers, but don't get any grandiose ideas. It's better to start simple. Besides, simple is easier to read. Magazines like *Maxim* are so busy that it can cross your eyes just to look at them.



The first thing to consider with your layout is your headers and page numbers. Will the header (your title bars) be on the side of the page? The top? Will the header be the title of the zine or of the current article? Will the page numbers be on the header, the bottom of the page or will you use them at all? (Generally, you should.)

Next, you have to decide how to present your content. Will you use columns or simple blocks of text? This may depend on what size your publication will be. Will it have full sized 8.5x11-inch pages or will it be the half-sized 5.5x8.5 inches? Generally, columns are easier to read, especially if you are using the full-sized format. Also keep in mind that your newsletter should be in increments of four – that is, four pages, or eight pages, or 12 pages, and so on. The first time I took a zine to be printed it was 18 pages long, so I had to either remove two pages or have two blank pages inserted.

The font you use should be easy to read. Your title can be as funky as you want, but if it's hard to read the main text, your reader may not bother. I'd recommend Times New Roman or Arial. For size, 12-point is all right, but a bit big. 10-point is generally the way to go.

Now, to backtrack a bit. Many desktop publishing programs come complete with templates ready-made for you. All you have to do is select the style you like and then plug your content into the provided spaces. If this quick creation appeals to you, go for it. However, keep in mind that other people are probably using these templates, as well. Your publication could end up looking a lot like someone else's publication. Remember, originality is good. Also, templates generally have text like "Place Your Text Here" in the text boxes. Make sure you replace or delete all these space holders or someone is going to have a good laugh at your expense. I have a co-worker who used a template to print her wedding photo and written across their torsos in 20-point print is the ever-present "Place Your Text Here." I personally suggest starting from scratch for each publication. Use the templates for ideas, but leave it at that.

Now, plunk in your content. (I'm going to assume you've either written all your content yourself or have permission from the respective authors. Never steal content. You can get into serious trouble, up to and including being sued.)

I bet your newsletter looks pretty good now, but a bit bland. You need some graphics. Even clip art can liven up an otherwise boring-looking publication. (Royalty-free graphics collections were covered in the *TC!* June issue). Photographs also work extremely well, though if you plan to photocopy your publication, photographs don't reproduce as well as you might like. Either stick pictures at the end of your articles to take up any white space on your page or put the picture in the center of your text and arrange the text around it. (Good graphic manipulation programs will be covered in a future column.)

Now you're pretty much done. Add a table of contents if you so desire (generally a good idea), publication/copyright information, a cover and whatever other miscellaneous details you desire (such as author bios).You are now done and ready to print. ◆

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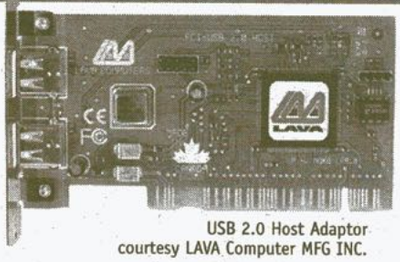

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By HAROLD LASS

Think of the central processor as the "brain" of your computer. Like a human brain, the CPU has to communicate with all of its parts.

For this, our brains use the nervous system; a computer uses a data bus (a group of conductive parallel wires forming electric paths to the CPU). For a peripheral or I/O (input/output) device like a keyboard, mouse or printer to operate, it needs to be connected to the bus, which is, in turn, connected to the CPU. Ports enable this connection.

Parallel and serial ports

The most common ports are serial (often 9 pins, but can contain 25) and parallel (25 or 36 pins). The name "serial" describes how it operates – transmitting one bit of data at a time, usually along a single wire. It's sometimes called a COM (communication) port. A "parallel" port transmits bits of data along eight parallel wires, like the bus. Often, the serial port connects a modem or mouse to the computer, and the parallel port, a printer.

You have to take care when connecting devices to these ports so that the pins on the male end of the device cable line up with the holes on the port or female receptacle. One bent pin and you've got a problem, because each one has a specific function.

Another type of parallel port is the "small computer system interface," or SCSI (pronounced "scuzzy"). Think of the SCSI as a kind of extension cord for the data bus. The advantages to this type of connection are that it allows for much faster data transmission and you can plug one SCSI device into another to form a daisy-chain.

USB (Universal Serial Bus) ports

This port not only is compact, doesn't use any pins that could bend or break and is hot-pluggable, it also permits just about anything to be connected to your computer (hence the name "universal") effortlessly.

Most computers come with only one parallel port, usually used by a printer. If you have another device that requires a parallel port, you'd have to install one yourself (not recommended for the faint of heart) or pay someone to do it. Not so with USB. If you run out of USB ports, not a problem. An inexpensive USB hub (usually with four ports) quickly clears up the shortage.

USB is quickly becoming the standard, and just about every peripheral today ships ready for easy USB connection.

FireWire (IEEE 1394)

If you're running heavy data demand items like a DV camcorder, DVD player, or digital audio equipment then FireWire is the way to go.

FireWire can be daisy-chained, if necessary. If your needs are not extraordinarily demanding, then USB is preferable because FireWire is a more expensive technology.

PS/2

The PS/2 frees up a serial port if needed for a modem connection. It's used primarily for the mouse connection (in fact, it's usually called the "mouse port") and for the keyboard connection. USB will most likely eventually replace the PS/2 port.

Learning to adapt

Finally, what do you do when you're holding one end of a cable in one hand and looking for a port on your computer that remotely resembles what it could go into? That's why adapters were created. You can find just about any kind of adapter (male or female) to mate just about any device to your computer.

But be warned. Using adapters won't always work if your computer was never meant to operate the device in the first place.

Read the box of any new peripheral you buy – especially mice, something we can all connect easily. If the fine print says it's USB and/or PS/2 compatible and your computer has neither port, it may not operate, regardless of the use of an adapter. No support there.◆

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* CPU Heat Sink with Ball Bearing Cooling Fan,
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* GeForce II MX 64M 4X AGP Video Card or ATI Radeon VE 64MB Dual Head & TV out Video Card,
* D-Link 10/100BT Ethernet Card,
* 52X IDE CD-ROM Drive,
* Intergrated 6 Channel Sound Audio,
* Altec Lansing AVS-300W Subwoofer Speakers System,
* ATX Tower Case w/300W P4 Power Supply, (Equipped with 6 pins Aux & 4 pins + 12v Power Connector)
* A-Open 104 keys PS/2 Keyboard,
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T-B XP 1600+ $ 699 · T-B XP 1800+ $ 729 · T-B XP 2000+ $ 809
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Satellite 6100PRO	P4/ 1.5Ghz	15"TFT	256Mb	56K/WLan	30Gb/DVD	$3299
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TECRA 9100	P4/ 1.8Ghz	14.1"TFT	256Mb	56K/WLan	40Gb/DVD	$4699

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Digital Shots: 10 digital photography tips

By CHRIS TALBOT

Photography may begin with snapshots of aunts and uncles at the family picnic, Toto the wonder dog playing dead and the kids tormenting Mickey Mouse at Disney World, but it doesn't have to end there. There's nothing wrong with snapshots for the photo album, but if you want to do more artistic photography, then you may need a few simple tips to help become a better digital photographer.

1. Read the manual and know the features of your camera.

If you're like me, the manual is the first thing you ignore when you take a new piece of technology out of its box. When that techie toy is a camera, it's an excellent idea to go back and read the manual cover to cover after you're finished playing. Who knows what valuable information you'll discover in those pages?

To begin with, you'll probably find out about a couple of features you didn't know existed and how to activate them.

2. Understand the lingo, like f/stop and shutter speed.

There's not room in this column for an essay on the values of understanding depth of field, motion blur and the other niceties of using f/stops and shutter speeds to your advantage.

Here's the least you need to know: Shutter speed is a simple concept. Measured in seconds or fractions of seconds, the shutter speed is the length of time the shutter is open when you click the shutter button.

The longer a shutter is open, the more light that gets recorded. A short shutter speed would be 1/1000 of a second, a common speed for sports photography (whenever you see a photo of a football player suspended in mid-air with no blur, the shutter speed is probably 1/1000 of a second or faster). A slow shutter speed, such as one second, may give blurry results (there are other uses for a slow shutter speed, but we'll get into that another month).

The definition of an f/stop is something that beginner photographers often don't – or can't – grasp. At it's most basic, the term f/stop refers to the size of the aperture (it's like the iris in your eye). It helps to control how much light is getting past the lens while the shutter is open and how much of the photo is in focus (referred to as depth of field). An f/stop is designated by a number (i.e. f/5.6), with a lower number letting more light in than higher numbers.

3. Practice makes perfect.

The only way to get better at something is to do it. Now that we're into the summer months and the weather has warmed up, head outdoors and spend some time shooting. To get some more practice, I'm planning day trips throughout Southern Ontario to shoot different locations.

4. Look at what others are doing and compare your work to theirs.

At last count, there were about a zillion photography magazines on the market (perhaps that's a slight exaggeration) from publishers around the world. There are also quite a few art galleries around that display photographs. Take a look at what other avid photographers are doing. You might find a style you'd like to try out.

5. Don't rely on image editing software.

Jim Babbage, a professional photographer and part-time photography teacher (also, the man who taught me to shoot in 35mm and digital), once told me not to rely on *Photoshop* to make my images look the way I wanted them to. Most of the composition of a photograph should take place "in the box." His advice is still good.

Relying on image editing software to do the work for you will make you sloppy and won't improve your photography skills.

6. Try new things. Don't let your work get stale.

If you always shoot in colour, try black-and-white. If you typically shoot under the noon sun, try dawn or dusk. As the cliché goes, variety is the spice of life.

7. Learn to frame your shots.

Have you ever noticed most snapshot photographers put their subject in the very centre of the frame? It's boring because every photograph looks the same. Dead centre is not always best. Experiment with framing your shots differently.

You'll be amazed at how something as simple as framing can affect the quality of your photographs.

8. Use what is behind your subject to add perspective and depth.

While you're framing your subject, don't forget to look behind them and see what's there. Objects and people behind your subject can add to or detract from your shot.

9. Make prints to see where you need to improve.

As stated in the May issue, it's great to make prints of your images to mount or to put in photo albums. There's another use to prints: You can use them to take a much closer look at your photographs to see where you need to improve. Computer monitors don't always accurately show images, so you might not be able to pick out slight blurs or other problems. Prints can show you what to work on.

10. Use a tripod.

Many photographs are spoiled because of blur. Maybe your hand was shaking or maybe your shutter speed was too slow (don't go below 1/60 of a second if you're holding the camera in your hand).

To help eliminate blur, buy a decent tripod and use it. Most digital cameras can be attached to a tripod. ◆

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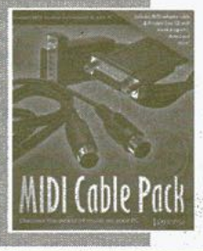

By NESTOR GULA

Although MIDI (Musical Instrument Digital Interface) is the accepted norm of communications between synthesizers in the musical world, MIDI connectors are not to be found on PC machines. Sure the Atari and Yamaha computers had them in the '80s, but no standard system has had them since then. To connect your MIDI instruments to your computer, you'll need to purchase external devices.

Voyetra Turtle Beach has a simple solution in the form of their $40 MIDI Cable Pack. In this set you get a single strand of cables that has two MIDI connectors on one end, one for MIDI-In and the other for MIDI-Out (MIDI is serial, after all), and 15-pin male and female connectors on the other end that attach to your soundcard's gameport. I like the fact that the cabling itself is about 10 feet in length – this does not force you to have the computer right next to your MIDI instruments.

The MIDI Cable Pack worked flawlessly after installing it. The installation CD also comes with several software applications. *Soundcheck* not only gives you a tutorial on connecting MIDI devices to your PC, but also serves as a diagnostic tool for audio and MIDI problems. *AudioStationLE* is a light version of an application that rips and burns CDs. There are demo versions of *MusicWrite Songwriter* edition, a notation software for the PC and MIDI keyboard, and *Digital Orchestrator PRO*, a MIDI sequencer and digital audio recorder and editor.

Voyetra Turtle Beach's MIDI Cable Pack succeeds as an interface because after you install it you forget it is there – it really works well. I had no trouble connecting to MIDI devices on any of the 16 available MIDI channels. If you are a musician or someone who thinks they will need more than 16 simultaneous MIDI channels, then Voyetra's MIDI Cable Pack will not fit the bill. For most users this package will be fine. (www.voyetra.com) ◆

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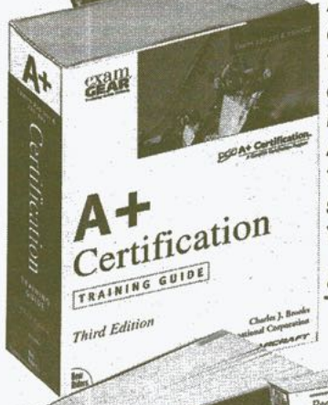

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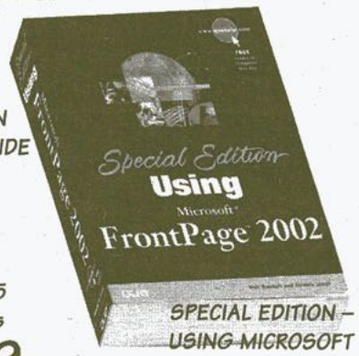

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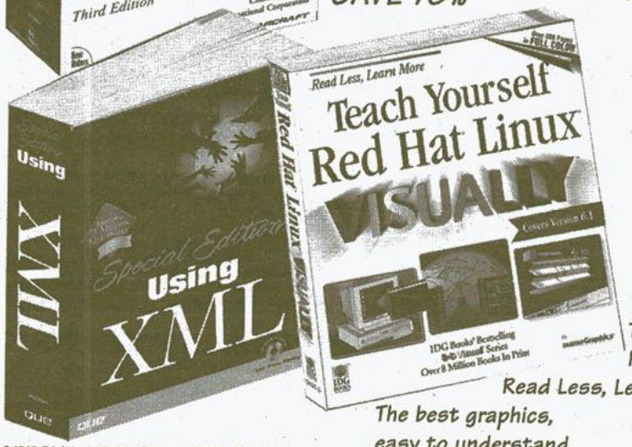

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CREATIVETECH

Musical Odyssey: Sampling revisited

By NESTOR GULA

The term "sampling" is one of the most misused words in music lexicon. This is largely due to the fact that its meaning changes depending on the context of its use. Last month this column touched on the subject of sampling, painting a broad meaning of the word. This was unfortunate, and now a more detailed examination of the concept is in order.

Much misuse

The use and misuse of the term sample can be traced to the evolution of the term. Webster defines the term sample as "an individual portion by which the quality of more of the same sort is to be deduced or judged."

The strict meaning, then, is that you sample a single sound and build the whole scale based on that sound. For instance, if you wanted a nice bass guitar sound to use with your MIDI keyboard, you could just sample a single bass note – any note, in fact, but it is best to sample a sound in the middle of the range you are planning to use. You can then modify the sound by adding effects, applying filters or changing the wave patterns of the sound, like in the early days of music synthesis. The amount of manipulation you can do depends on the power of your sampling software. The sample program will then extrapolate all the rest of the notes of the scale.

Some sampling programs are sophisticated enough to let you alter the note played, depending on the way the key is hit. If the key is hit with a great deal of force, then a hard sound will emerge. A gentle touch could produce a gentle note. Going back to the bass guitar example, you could program sharply hit notes to sound like a slapped bass, medium hits to sound like a regularly plucked note and gentle hits on the keyboard to sound like a gentle caress of a bass string. Of course, you will have to sample the three individual bass sounds separately.

Synthesizer samples

Modern synthesizers use samples for many of their sounds. Most General MIDI instruments will have all their sounds based on samples as well. It is much easier to store 128 sounds (the standard General MIDI sound set) somewhere on a microchip than to engineer a sophisticated synthesizer system that will create the sounds themselves. This has also lead to the benefit of better sounding instruments.

Go to a music store and listen to the sound of a piano produced by a modern electronic keyboard. It is much better than the sound available several years ago. The same system for extrapolating the sounds for all the notes of the scale can be used for all the stored sounds in the sound sets. This also applies to the sounds stored in your computer's sound card. If you wrote a tune using just the General MIDI sound set, it will sound the same played on somebody else's computer or on a General MIDI keyboard.

This is a problem when recording with General MIDI sounds, as everything does start to sound the same. By sampling your own sounds, you can personalize your sound and not sound like everybody else.

Sampling songs

Another use of the term "sampling" is when musicians sample riffs or musical fragments and use them as loops in their songs. This could take the form of a sample of a single bass line that is incorporated in a song for effect or the "sampling" of a whole song with new elements added on top. Some purists call this stealing or ripping off. This is the new meaning of sampling, and is usually the source of confusion for the original term.

Sampling at home

Sampling is occasionally useful when recording on your computer. You will need a special program, like Cakewalk's *VSampler DXi* to make the most of your samples.

You record your sampled sound and import the sound to the sampler as a .wav or .aiff file. You have lots of options for sound manipulation and you can easily set up your keyboard, or other MIDI controller, to trigger the sounds you desire.

Sampling homemade riffs is very useful, especially if you have to repeat a part over and over again – like a bass riff or a drum pattern. You could play and record the riff once and then just insert copies of it wherever needed. ◆

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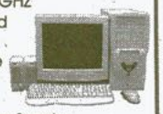

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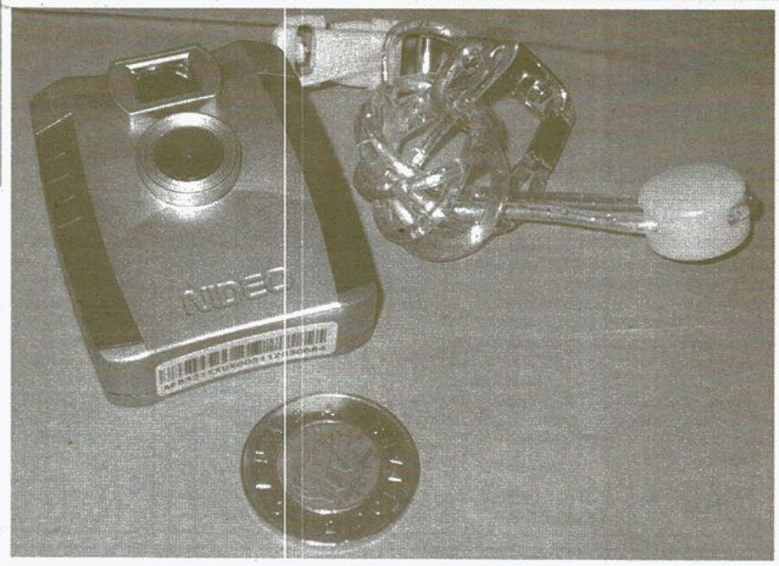

By CHRIS TALBOT

If you've ever longed to speak the phrase, "My name is Bond, James Bond," then the novelty factor of the Nideo digital camera will be quite high. Being touted as the smallest digital camera by its manufacturer, SSI Computer Corp., the Nideo is approximately 5.5 cm long by 4.75 cm wide, with a thickness of 1.5 cm.

The weight of the Nideo is so little that you can wear the camera around your neck on the handily-provided cord and you'll probably forget it's even there. In fact, I walked with it around my neck for one day and many residents of the Canada Computer Paper office thought it was some kind of funky keychain.

Don't be fooled by its size, though. The Nideo is a fully-functional camera capable of taking pictures at 640x480-pixel resolution. The resolution of the images is too low for printing (unless you want postage stamp-sized prints – in countries, like Japan, "sticker pictures" are all the rage).

Serious photographers should put some significant distance between themselves and the Nideo. Photographs taken are often grainy, poorly-focused and over- or under-exposed. Not being able to use the images for anything but sending through e-mail or posting to a Web site makes it useless for even the most forgiving vacation photographer.

However, if you want to be the cool guy on the block with the smallest digital camera out there, then maybe you'll want to get one of these things. The Nideo has two resolutions – high and low. The high resolution is the 640x480 mode. Image files (JPEGs) are between 20 KB and 30 KB in size. In high res mode, you can take 26 pictures. Low resolution mode allows you to take 99 images at 320x240 resolution. The images are noticeably smaller in size. They come in at a whopping 8 KB to 10 KB.

The unit is made from plastic and appears to be cheaply put together. A small LED screen on the back states what mode you are in and how many shots you have left before you run out of memory (Note: If the battery runs out of juice, any shots in the camera will be lost).

The camera is being sold in Canada by Merconnet (www.merconnet.com). The price, according to the Web site, is $141.51 (with shipping, it comes to $162.41). Considering the quality of the camera, I'd say this is on the high end of the price spectrum, but if you want to be James Bond ... ◆

more INFO

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CyberPlay

Hats off to the Hip: Putting fans first

By GEOFF MARTIN

Does this mean the Internet is more than just a vehicle for pirating music? Who knew?

The Tragically Hip have always been one of the more Web-savvy musical acts around, diligently updating fans about what's going on with the band through its Web site, and using it as a vehicle to connect with Hip-crazy fans from Canada and around the world.

But with the release of their latest album, *In Violet Light*, the band has taken connectivity with its fans to a whole new level, with the introduction of what's being called The Hip Club.

Fans who have been snapping up the *In Violet Light* CD since it went on sale early last month have been pleasantly surprised to find something resembling a credit card inside the CD package, which gives them an individual PIN number to enter the online home of the Hip Club. Once they've entered the site and signed up for club membership, fans can immediately reap the benefits by downloading two unreleased tracks in MP3 format that didn't make it onto the album.

In the future, Hip Club members will be able to access further members-only tracks from the band, including highlights of their live shows. They'll also be given access to merchandise that can only be purchased by members, as well as front-of-the-line access to concert tickets for the band's summer tour. There are even some hints on the member site about special live gigs that will only be accessible to THC members.

It's always nice to see the Net working for a band, rather than against it, and it's also nice to see a band that is willing to embrace what the Net can do for them, rather than constantly complaining about it.

For more info on The Hip Club, the new CD, and the band's first summer tour of Canada in years, visit www.thehip.com/.

THC

THE HIP CLUB

Fragging their way to fame and fortune

Just as Curtis Joseph is currently mulling over a multi-million dollar offer from the Toronto Maple Leafs, youngsters across the country are currently in training to one day match his hefty paycheques. But they're not practising on the ice, nor do they aspire to greatness in the sport of hockey – these kids are practising in darkened basements everywhere, and guzzling Jolt Cola instead of Gatorade.

Hard-working youngsters in Canada and all over the world are hoping their dreams of fame and fortune will be granted courtesy of the Cyberathlete Professional League, or the CPL (www.thecpl.com). The CPL is a league for professional video game players, and it now has major corporate sponsorship, in addition to a whole lot of prize money.

At May's Electronic Entertainment Expo in Los Angeles, it was announced that Intel was coming on board to provide hardware and marketing support for the CPL, as well as a whopping cash infusion of US$45 million. This cash will go towards raising the profile of the league, and will also enable the organization to organize tournaments offering substantially higher prizes for the winners.

There aren't many people earning a significant living from playing video games at the moment, but with a rapidly growing audience, the CPL seems destined to become the Internet's first major spectator sport.

The CPL's summer championship is taking place in Dallas, Texas, and the league recently had to shut down registration after 120 teams of self-professed masters at the first-person shooter *Counter-Strike* entered in the hopes of taking home some of the US$100,000 being offered in prize money. They also sold out of spectator seats after some 3,000 gaming fans plunked down US$50 just to watch.

The CPL has been shying away from offering television coverage of its events, choosing instead to stream the tournaments over the Internet. Most hardcore gamers seem to prefer it that way, with tens of thousands logging on to view live footage of the tournaments. Of course, once the first major network catches on, it might not be long before Monday Night Football is playing second-fiddle to Friday Night Frag-Fest.

Quit monkeying with those video games!

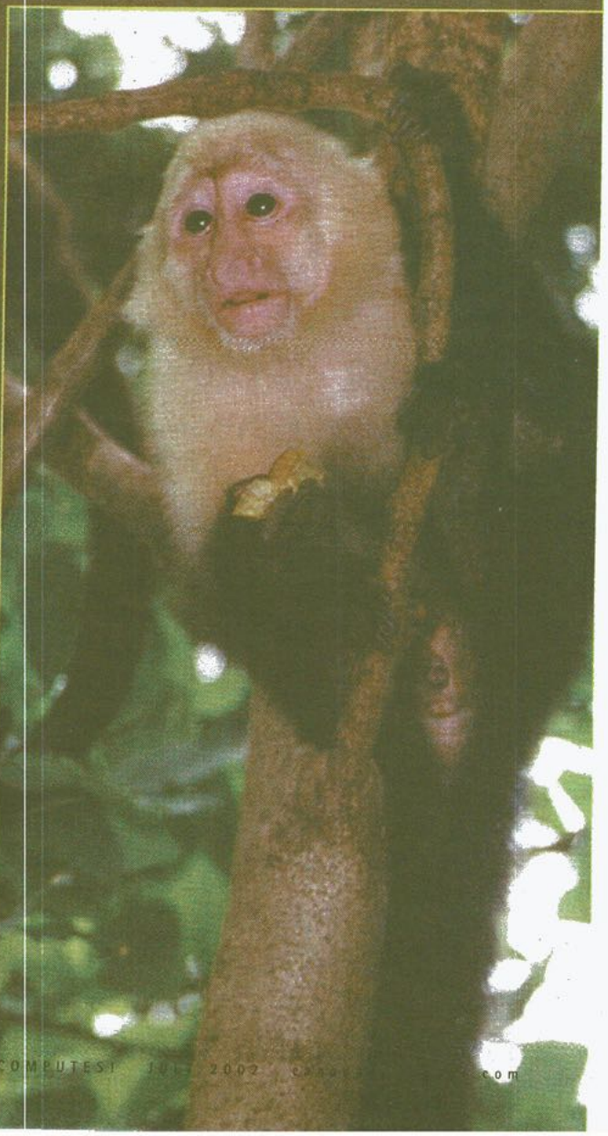
Chutney the capuchin monkey just can't get enough PlayStation.

Chutney lives in West Sussex, England, where his owner Stephen Morgan was forced to buy the monkey a PlayStation gamepad after the primate tried to steal one away from the man's five-year-old son. The monkey doesn't actually play games with the gamepad, but he's become very attached to it nonetheless, and takes it everywhere he goes as a modern-day version of the teddy bear.

Word of the monkey and his strange predilection spread quickly in the small town of Southwick, and once the media caught onto the story, the authorities eventually came knocking, asking whether Morgan had a license to keep such an animal. When Morgan couldn't produce the proper paperwork, Chutney was taken away from its owners and put into foster care.

Morgan is prepared to give up the monkey if he has to, but he is also worried about his tiny friend, because he has been separated from the controller he so adores.

"We didn't think he'd be gone this long, so we didn't send any of his toys with him to the carers' house in Wales," Morgan told a local newspaper. "I told the council if they give us a licence and he turns out to be a nuisance to people, I will give him to a zoo. I just want them to give us a chance ... He is such a lovable creature and I've got so many friends supporting me," he said. ◆



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Skating with Tony, part three

By ANDREW MOORE-CRISPIN

Are there any sweeter words in the video game vocabulary than *Tony Hawk's Pro Skater*?

Tony Hawk's Pro Skater 3 expands on the huge popularity of the first two games in the Tony Hawk series, and as an answer to devotees' prayers, Neversoft and Activision O2 didn't mess with the near perfect feel of the game controls; instead they just did some slight tweaking and called it good ... which it certainly is.

This is one game where a gamepad of some sort is a must-have, especially for players used to *THPS* games on game consoles.

New to the *THPS* series is network play, where gamers can play on a LAN or over the Internet. This adds a whole new dimension of gameplay to the *THPS* franchise, in that once players finish the eight levels, they can test their mettle against other players around the world. The game comes bundled with GameSpy arcade, which allows gamers to play against each other online for free in any of the different game modes:

- **Graffiti** – Players trick off the pipes and rails, colouring them according to whose trick net the most points.
- **Trick Attack** – Players link tricks to get the highest score within a time limit.
- **Slap!** – As the name suggests, players slap other players by skating into them; the faster player slaps the slower one. The player with the most slaps when time is up, wins.
- **King of the Hill** – One player gets the crown; it's up to the others to take it. Whoever holds the crown for the specified amount of time, wins.
- **Free Skate** – No points, no time limit ... hence the title Free Skate.
- **Control the Zone** – Players form teams, whoever tags the most zones when time is up, wins.
- **Keep Away** – Keep the ball away from other players ... just like in the schoolyard.
- **Capture the Flag** – Need we say more?

The Park Editor feature also adds to the potential for longer gameplay. Once gamers tire of the levels (which will probably take a while), they can create a new park, test skate it, save it and offer it up for play in multiplayer mode.

User-made parks can also be traded and downloaded from various fan sites.

The game ran very smoothly on our test bed PC (PIII 600 MHz, 256 MB RAM, 64 MB ATI Radeon graphics card) in performance mode, both in single player and online multiplayer.

Even while running in performance mode, the graphics were sharp and clean with no dropped frames in single player and very few in multiplayer mode.

The graphics, which can be best described as cartoonishly realistic, are smooth, clean and detailed, and on the test machine, there was no distance fog to detract from the game.

Neversoft also added a ton of cool new tricks, including the revert, which allows players to continue a trick combo, even when coming off a big air trick, the lack of which was my one big complaint against *THPS 2*.

The *THPS* franchise is accessible to a wide audience, regardless of their interest in the game's subject matter. Just about anyone can jump in, get the feel for the game and begin advancing through the levels, while the hardcore *THPS* player can earn new tricks, boards and cheats by completing all the in-game objectives.

THPS 3 is essentially *THPS 2* with new and considerably bigger levels and some cosmetic improvements. That isn't a bad thing, though. After all, as the saying goes, if it ain't broke, don't fix it.

The ability to take your skills online and find out how truly lacking they are against eight of your peers is alone worth the price of $69.99. ◆

more INFO

Tony Hawk Pro Skater 3
$69.99
Activision O2
www.activisiono2.com

TEEN T CONTENT RATED BY ESRB

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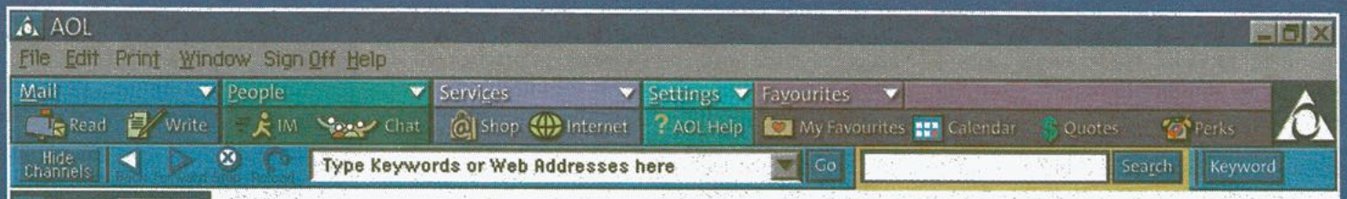

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Die Harder - but not hard enough

By ERIK SEBELLIN

Die Hard: Nakatomi Plaza is based on the first *Die Hard* movie, which means it follows the same plot: A group of international thieves, led by the Alan Rickman, crash Nakatomi Corporation's holiday party to crack a vault filled with millions of dollars. Unfortunately, they smack head-first into visiting police officer, John McLean, played by Bruce Willis.

Although the movie had a predictable plot, the over-the-top badness of Alan Rickman and wonderful sincerity of Bruce Willis turned this into a fun romp. Unfortunately, in *Nakatomi Plaza*, the acting talents of Rickman and Willis are gone.

Made with the LithTech engine, which was used for *No One Lives Forever*, *Nakatomi Plaza* is abysmally bad. First, the bad points. Then, the not too bad points. And, finally, the few good points.

Bad to the bone

Not only is *Nakatomi Plaza* a cookie-cutter first person shooter, but to add insult to injury, it is littered with blatant product placements. John McLean, for example, uses a Zippo brand lighter and a Motorola Talkabout two-way radio at every opportunity.

Visuals are uninspired – rooms are filled with blocky, uninteresting furniture – and graphics don't improve when you increase the resolution. Movement in tight spaces affords you the unusual opportunity to get stuck on objects. In one instance, when our character brushed the side of a desk, he instantly became stuck and could not move until he backed away from the desk. There are also underwhelming boss encounters. Boss encounters are fights against particularly tough or skilled opponents. These opponents, however, are neither.

The worst, however, is the voice acting. With the exception of the portly cop, none of the original actors do the character voices. While this is understandable, what is not is that the actor portraying the Bruce Willis character tries very hard to do Bruce Willis. Unfortunately, no one does Bruce like Bruce.

Not only do the characters from the original movie not sound like their movie counterparts – the sole exception being the portly cop – but they don't even look like their movie counterparts.

Not too, too bad

Although there are some fun weapons, the variety is quite limited. Weapon effects are okay; not exciting, but not cringe-inducing. Interestingly, in some cases you can use interactive objects as weapons. For example, if you shoot a hook hanging from the ceiling, it can fly about and impale your enemy.

While bullets do realistic damage to your character, they don't do the same to your enemy. In fact, it sometimes takes two pistol rounds to the head to fell an enemy. You can unload half a clip into someone before they fall.

The game's claim to fame is the health system of your character. Besides the standard health bar, you've got a stamina bar and a morale bar. The lower your stamina gets, the slower you move. Theoretically, the lower your morale gets, the more aggressive the enemy is. However, in practice, your morale rating has no effect on the enemy.

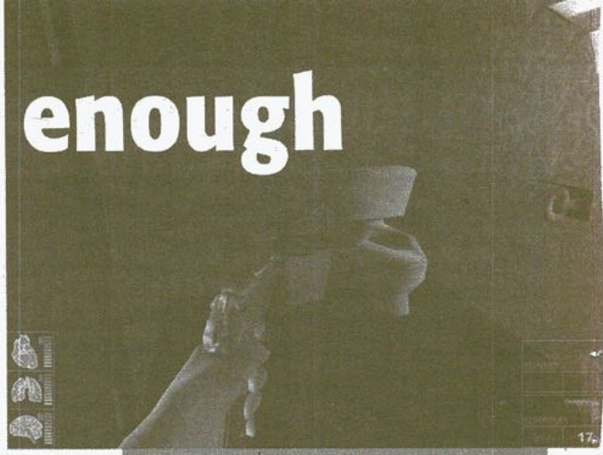
The game includes an offer to mail away for a copy of the *Die Hard* movie. However, maintaining the second rate quality that plagues this game, this offer is only for the VHS version.

Actually good

Although the characters do not look like their movie counterparts, the skins are fantastic – nicely detailed and interesting. And, if you have a fixation with the *Nakatomi Plaza*, you'll be happy to see that all 30 levels of the game take place on faithfully recreated floors of the Plaza. The game also includes a demo for *Aliens vs. Predator 2*.

Bottom line

This game is so abysmally bad, it is not worth the price. If you really need a *Die Hard* fix, skip the game and buy the movie. ◆



The game starts in the toilet and heads down from there

more INFO

Die Hard: Nakatomi Plaza
$39.99
Fox Interactive
www.foxinteractive.com

MATURE M ESRB

Requirements:
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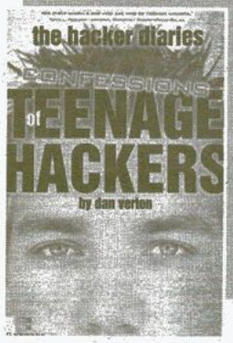

The Hacker Diaries: Confessions of Teenage Hackers
By Dan Verton
Publisher: McGraw-Hill Osborne
ISBN: 0072223642
219 pages
$34.95

By TOM VENETIS

Hackers seem to hold a certain fascination for people. Dan Verton, a veteran technology writer, tries to come to some understanding of hackers by delving into the history and personalities of such infamous hackers as Joe Magee, Genocide, Anna Moore and MafiaBoy.

Verton tries to dispel the myth that hackers are largely social misfits who turn their frustrations at the world into learning about computers and then trying to take down systems. While Verton may try to dismiss this all-too-common caricature of the typical hacker, many of the hackers he has managed to interview come close to fitting the bill.

One hacker, named Genocide, got into hacking because he was bored with class work. The only thing that interested him was computers and finding ways to disrupt the school's network.

One prank involved putting a 30-frame pornography video on the screensavers of the library's computers. Eventually, he used his skills for more advantageous exploits, like changing his chemistry marks.

While many of Verton's profiles are interesting and even quite amusing, he misses what is really most fascinating about the hacking culture, and that is how it has changed from its earliest days.

Early hackers were often motivated by a desire to keep information free. Now they tend to be young, driven by ego and the notion that "everybody was a prick."

Another area Verton only touches lightly is the phenomena of political hacking, where activists go out to bring down or deface sites and systems of groups or countries they have a problem with.

Overall, Verton's book is a rather marginal affair, adding very little to understanding the hacking culture. ◆

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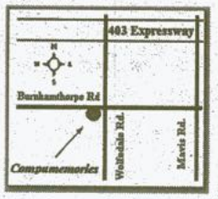

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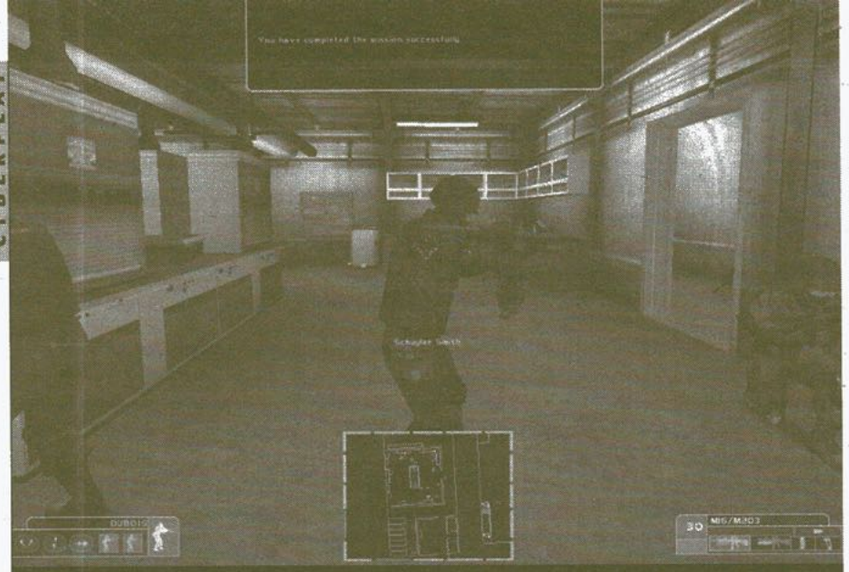

Calculate The Sum of All Fears

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Requirements:
Windows 98/2000/ME/XP
Pentium II 450 MHz or AMD K6-III 500 MHz processor
128 MB of RAM
16 MB 3D video card
1 GB of hard disk space

By CHRIS TALBOT

Red Storm and Ubi Soft have used Tom Clancy's name to package yet another tactical first-person shooter. This time, they've tied it directly into one of Clancy's novels and the movie based on it – *The Sum of All Fears.*

Similar in gameplay, tactics and graphics to *Rainbow Six* and *Ghost Recon*, *The Sum of All Fears* (the game, not the novel, not the movie) is a tactical first-person shooter (FPS) that puts the player in the shoes of a team of counter-terrorist agents tracking down those ultimately responsible for setting off a nuclear device in Baltimore. Included in the game are 11 missions that take less than three hours to complete and a storyline that parallels the movie.

When the game begins, your units run through two missions in which their goal is to rescue hostages and eliminate the terrorists holding them. After a short video that shows the bomb going off in Baltimore (and yes, it destroys much of the city), your team is used by the CIA to investigate and take down the terrorists responsible. Missions include assassination, demolition, hostage rescue and apprehension of major terrorists.

Comparing *The Sum of All Fears* to Red Storm's previous tactical shooters, it's clear that *Sum* has a more interesting storyline to follow (besides, everyone loves movie tie-ins, right?). Thankfully, there are very few full-motion videos to sit through. Most of the story is told in short mission briefings, and then players are set loose to do some damage to various terrorist cells.

Tactics are planned out ahead of time for you, so if you follow the game's lead, you'll complete the entire storyline in less than three hours. Setbacks, such as your entire team getting wiped out during missions, will ensure longer play time. However, if you're cautious, you'll cut down terrorists with fully-automatic weapons before they can beg for mercy.

There are 15 firearms available, but players can also use flashbangs and frag grenades. Typical firearms tend to be silenced, though, so you won't get that satisfactory rat-a-tat-a-tat sound that you'd find in games like *Return to Castle Wolfenstein* and the *Soldier of Fortune* series.

Multiplayer mode allows teams to participate in competitive or cooperative play greatly increasing the game's life span on your computer. Sadly, neither Ben Affleck nor Morgan Freeman make an appearance in the game. ◆

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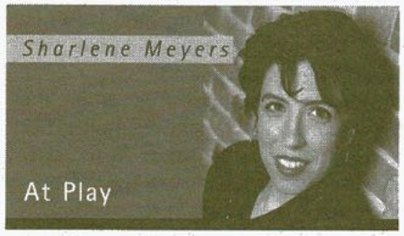
Star Trek: Armada II needs another word



I've never been a gamer. I lost a few quarters in some arcade games nearly 20 years ago (probably setting new records for the shortest route to Game Over), and figuring that I could find other things to waste money on (like lip gloss), I never looked back.

Nevertheless, it's not every day your boss offers you the chance to play games at work. And gaming has come a long way since the days of *Ms. Pac Man* (very likely the only woman in the world addressed as Ms. but without a name of her own).

So I went home armed with *Star Trek: Armada II*, ready for adventure. While not a Trekkie, I have been known to watch *Star Trek* on occasion, especially *The Next Generation*. And I may have had a bit of a crush on Captain Jean-Luc Picard.

Well, he likely wouldn't think much of me. Fortunately, the game starts off with a user interface tutorial. Unfortunately for the crew I made ill by hurtling them hither and yon while trying to figure out how to fly the ship, the tutorial did not give me an Academy-class education in the finer points of space flight. I'm hoping the captains in the fleet have a better education than I got from Starfleet Academy – it reminded me of the daily offers for college degrees I keep getting in my e-mail.

My first attempt at the Federation campaign was a failure, too. I made the mistake of viewing the list of objectives as I would any other checklist. The first task listed was to build a research station, so that's what I did. I then happened to spot a nearby source of metal, and remembering the tutorial instructor's advice about building my economy, I decided to set up a mining operation. Only I had no metal to build mining ships, because I had used it for my research station. Oops. I guess that's what puts the "strategy" in "real-time strategy."

My second attempt was going much better – I had a couple of planets being mined and had sent a couple of ships out to explore – until the Borg attacked, just as I was getting the hang of things. Luckily, I had left standing orders with the fleet to defend itself – I figure the crews are probably safer in the hands of their captains than they are in mine! I was constantly getting notifications that we were under attack, and was usually a little slow to figure out where the attack was.

So this is the thing: I need an executive assistant, maybe even two. How else am I supposed to command the shipyard to build and repair ships, and explore the quadrant to open the map, while making sure that my fleet isn't being outgunned by the Borg in the opposite corner of the Delta quadrant? The Borg destroyed one of my mining ships almost immediately after I deployed it. I lost a group of six brand new ships when I wasn't looking and all of their crews were assimilated. I'm pretty sure that would be grounds for a demotion of some sort in the real world.

Finally, overwhelmed by mounting losses and stressed out with trying to keep the Borg at bay while fruitlessly searching for the planet I was supposed to colonize, I just had to turn it off. I saved my game and looked for something a little less intense.

I found it sitting on my kitchen counter: *Life*, by Hasbro Interactive, which came on a CD packaged inside my last box of Honey Nut Cheerios. Within minutes I was back to the 20th century, deciding whether to spend $40,000 on college and which career to choose. Earning $100,000 per year as a professional athlete, I was delighted to find that the $20,000 my opponent spent on box seats to the World Series went directly into my bank account (notice the game isn't called "Real Life"). However, the entire $30,000 I paid in taxes was appropriated by the accountant.

I followed my lucrative career as an athlete with a less lucrative, but still comfortable career, as an artist and managed to retire in Millionaire Estates with nearly $2 million, two children and a grandchild. Turns out, I'm much better at *Life* than I am at commanding fleets of space ships.

Maybe I can use some of that cash to hire an assistant ... ◆

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CYBERPLAY

SPIDER-MAN

Help Spidey kick the Green Goblin's butt

By CHRIS TALBOT

So you've seen the movie, you've read the comics, you even own the soundtrack – now play the game. In Activision's *Spider-Man* computer game, based on the recent movie, players take on the role of Peter Parker and go toe-to-toe with some of the baddest villains in Spidey's world.

From the battle with Uncle Ben's murderer to the showdown with the Green Goblin, Activision has brought the action and intensity from the movie to the PC. Unfortunately, the game was obviously designed with the console systems (PS2, Xbox) in mind because the PC version is problematic.

The keyboard controls take some getting used to, and they're far from perfect. Spidey doesn't move like you would want him to while using the keyboard, but if you spend an hour with it, you should get the hang of it so that Spidey doesn't get shot full of holes.

If you haven't seen the Sam Raimi movie yet and you still want to play the game, you don't have to worry all that much about spoiling the film. While the basic plot of the movie is there, there are a lot of additions that keep Spider-Man occupied, such as battles with a group of thugs calling themselves the Skulls, as well as comic book enemies like Shocker, Scorpion and Vulture. Also, scenes taken from the movie are often changed just enough so that you don't feel like you already know how it's going to play out.

The manual accompanying the game's two CD-ROMs is a 32-page jewel case insert. While much of it discusses different aspects of the game, five pages are set aside for tables listing each command on the keyboard (after playing the game, it almost seems like the manual is missing a couple of commands, though). Players will need to keep the manual handy until they've learned all of the commands.

Thankfully, the game has a training mode that teaches you how to do most of the moves Spider-Man will have to perform during the game. Narrated by Bruce Campbell (who has a bit part in the movie – kind of an in-joke for Raimi's fans; ever see the *Evil Dead* flicks?), the training mode helps you get ready for the game. Even if you think you're elite enough to skip training, it's worth playing the training mode to hear Campbell's smartass wisecracks. Campbell's narration also appears at intervals throughout the game.

Other voice talents in the game include Tobey Maguire as Spider-Man (who plays Peter Parker/Spider-Man in the movie, as well) and Willem Dafoe as the Green Goblin (who plays Norman Osborn/Green Goblin in the movie).

If you're a Spider-Man fanatic, then this game will be a fine addition to your collection of computer games. Fans that appreciate the third-person perspective of games like *Resident Evil* and *Tomb Raider* will likely find the learning curve is manageable. Both sets of fans will probably enjoy getting the chance to use Spidey's wall-climbing and web-slinging abilities (Activision released a 3-D third-person *Spider-Man* game last year, too). The results can be quite exhilarating once you've mastered the game's control scheme. ◆

more INFO

Spider-Man: The Movie
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www.universeofheroes.com/game_themovie.html

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Four "persistent worlds" to watch for

Looking for an alternate life? A handful of upcoming massively-multiplayer games were previewed at this year's Electronic Entertainment Expo (E3).

These online-only computer games will support literally thousands of simultaneous players at the same time and are referred to as "persistent worlds," as all the events in the game will continue to take place even if the player logs off.

There's little argument about the demand for these kinds of virtual getaways – Sony Online Entertainment's *EverQuest* now enjoys close to 450,000 people who are each paying $13 (U.S.) a month to reside in the fantasy world.

The following are four new titles to look for, and keep in mind the official launch dates and prices are still to be determined.

Earth & Beyond

Westwood Studios, best-known for its celebrated *Command & Conquer* series, is now making the leap into the massively-multiplayer arena with *Earth & Beyond* (www.earthandbeyond.com).

Players climb into a spaceship and can fly around familiar planets in our solar system such as Saturn or Jupiter, or enter a star gate and be transported to all-new worlds.

But exactly how you choose to play the game and increase your skills as a pilot, trader or fighter is entirely up to you – be it advancing through heated combat, cunning commerce, diplomatic alliances or by going at it solo as a freelance mercenary (Han Solo, anyone?).

Graphics are absolutely stunning, with real 3-D planets to fly around, black holes, nebulae and asteroid belts, plus the ships are all to scale so it's possible to sense the size difference of your puny cruiser while pulling up to an enormous space station.

The game should be ready by the fall.

Star Wars Galaxies: An Empire Divided

The makers of *EverQuest* have joined forces with LucasArts (www.lucasarts.com) to create an ambitious RPG in the *Star Wars* universe.

Star Wars Galaxies: An Empire Divided (www.starwarsgalaxies.com) can be played from a first- or third-person perspective as one of eight species, where players can roam through recognizable planets such as Tatooine, Dagobah, Hoth and seven others.

Gamers can also form new cities, build helper droids and of course, band together to battle enemies.

The game will be followed by an optional expansion pack allowing players to own and fly various *Star Wars* starships to expand the conflict into space.

Galaxies is expected to launch its beta program on July 15th. Visit the Web site for more details.

The Sims Online

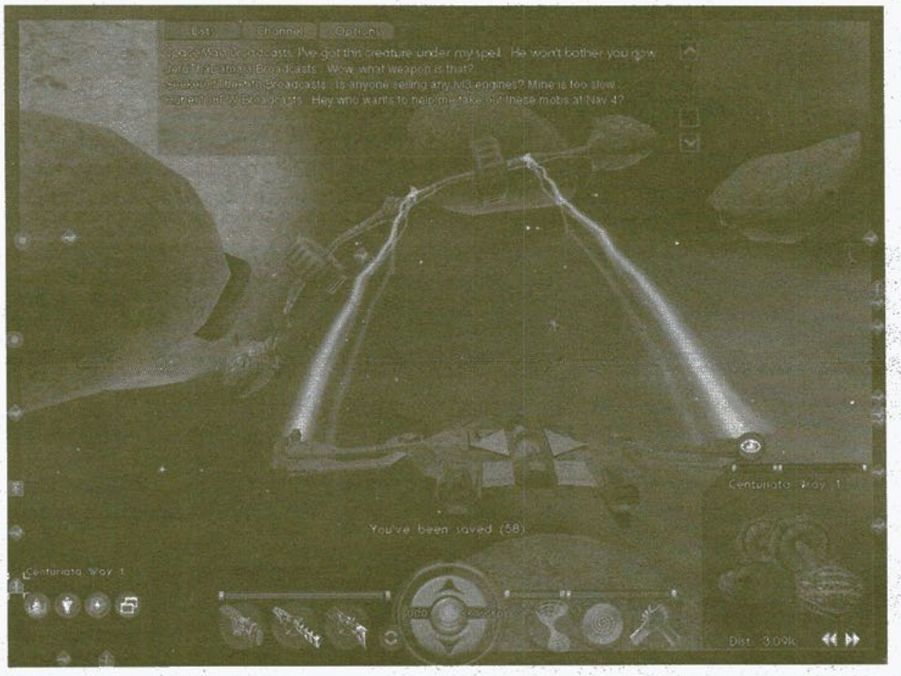
Based on the best-selling computer game of all time, *The Sims Online* (www.thesimsonline.com) will soon bring everyone's favourite little simulated people onto the Net so they can interact with other human players instead of computer-controlled ones.

After creating an avatar to represent yourself online, gamers can then mingle with others to form relationships and build a dream home or any other place, be it a country and western bar, a game show set, a diner and so on.

Much like the offline game, the goals in the game can be to make as much money as possible, build a beautiful house, succeed at your job or fall in love and get married.

Don't feel like participating today? Kick back and watch other Sims as their virtual soap opera unfolds before your eyes in real-time.

The Sims Online should be out by fall from Electronic Arts.



World of Warcraft

Blizzard Entertainment (www.blizzard.com) has legions of fans who will soon be able to "live" in the company's rich fiction 24/7.

World of Warcraft (www.worldofwarcraft.com) will be a massively-multiplayer RPG based on the mega-popular *Warcraft* series. In fact, the game takes place four years after the events of *Warcraft III: Reign of Chaos*, due out this fall.

As one of four character classes – Warriors, Dwarves, Mages and Shamans – players can set out in the land of Azeroth to join forces with other gamers and build their strength to combat enemies.

Players can also buy, sell and trade countless weapons and items in order to become the ultimate fighter in the war-torn lands.

As with all "persistent worlds," this game universe will be dynamic, with constantly changing events and situations.

More information and images are at the official Web site for the game. ◆

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Command factions with *Clone Campaigns*

By CHRIS TALBOT

Now that *Star Wars: Episode II – Attack Of The Clones* has been in theatres for awhile, fans can re-live the action by picking up the *Clone Campaigns* expansion for the *Age of Empires II*-esque *Star Wars: Galactic Battlegrounds* (see review in *TC!* February 2002).

Spoiler alert: *Clone Campaigns* introduces two new civilizations, a bunch of units and story elements from *Attack Of The Clones*, so it's wise to see the movie before playing the expansion (although it's not necessary to play the game – but why spoil the movie if you don't have to?). For those not familiar with *Galactic Battlegrounds*, the game is a real-time strategy built on the *AoE II* engine. However, the sheer number of units that have ranged combat attacks will make your *AoE II* combat tactics nearly useless.

In addition to the six factions from *Galactic Battlegrounds* (Galactic Empire, Rebel Alliance, Wookiees, Royal Naboo, Gungans and Trade Federation), the *Clone Campaigns* expansion adds the Galactic Republic and the Confederacy of Independent Systems to the list.

Players who take on the role of the Galactic Republic will not only have the Jedi to back them, but also an army of clone troopers, Kamino cloning and refitting technology, and the assault mechs featured in the film. Take on the role of the Confederacy and you'll have super battle droid troopers, the winged Geonosians and the creatures that appeared in the film's execution scene to back you. In total, the expansion adds over 200 new units to the game.

There are a few tweaks to the original game included in *Clone Campaigns*, as well. For instance, each faction now has a unique team bonus that is applied when allied to another faction. The maximum population limit has been bumped up from 200 to 250 (you can modify the maximum population while setting up a game). Best of all, though, is that the Jedi Knights and Sith Lords are cheaper and tougher (more bang for your buck, you could say). Each Jedi/Sith ability is cheaper to research and Jedi/Sith units have additional hit points, which they also recover at a steady rate.

Unfortunately, even though *Galactic Battlegrounds* is a fun game and some of the additions made with the *Clone Campaigns* expansion are nice to have, the expansion seems of only nominal value to the keyboard warlord. The enhancements are mostly unnoticeable during gameplay; the new factions and units can be fun, but don't add much to the game itself. The campaigns are based on events in *Attack Of The Clones* and vary from mediocre to good – nothing truly spectacular.

more INFO

Star Wars: Galactic Battlegrounds – Clone Campaigns
$44.99
LucasArts
www.clonecampaigns.com

TEEN T ESRB

Requirements:
Star Wars: Galactic Battlegrounds
Windows 95/98/ME/2000/XP
Pentium II or Athlon 233 MHz processor
32 MB of RAM
2 MB PCI or AGP graphics card
4x CD-ROM drive

In conclusion, the expansion isn't beefed up as much as expected. The novelty of playing the Confederacy or the Republic wears off fairly quickly. After a few games controlling Geonosian walking insects and clone troopers, you'll be dying to get back to playing the Galactic Empire or the Wookiees.

Unless you're dying to take control of the Republic or the Confederacy, the *Clone Campaigns* expansion is probably worth skipping. Let's hope future expansions (if any) have more meat on the bone. ◆

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Crafters' Internet Handbook

By CHRIS TALBOT

People who engage themselves in needlework, knitting or any other type of craft may find Geneviève Crabe's *Crafters' Internet Handbook* to be a valuable source of information on how to buy, sell and find useful crafting resources online, but any crafter who already has an understanding of how to use the Internet will likely find this book to be too elementary.

Although the author states in the book's introduction that she wrote under the assumption her readers were already familiar with the Internet, the book's chapters dictate otherwise. The first two chapters detail the basics of e-mail and browsing the Web. Later chapters explain simply how to use a search engine, discussion lists, online communities and how to shop online. These are items that someone who has already spent time using the Internet would already understand.

Crafters' Internet Handbook is filled with short text passages explaining the various topics and a lot of screenshots of Web sites. While many of the sites listed are places like Amazon.com or eBay.ca, there are quite a few craft-specific Web sites.

Crabe provides information on everything from using e-mail to building your own Web site to sell crafts. She also details copyright in one chapter, an issue that too many crafters don't understand. The chapter also explains a bit about how to protect your own intellectual properties.

After reading through *Crafters' Internet Handbook*, I was left still wondering about how to buy, sell and research crafts online – specifically crafts, that is. Most chapters are written for such a generic audience that you could apply them to any hobby. Only the examples need to be changed.

If you make crafts and have yet to take the plunge and get online, then this book has its merits. Tech savvy types will be craving more content after they've read the last chapter. ◆

more INFO

Crafters' Internet Handbook
Geneviève Crabe
$29.95
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ISBN: 1929685432
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www.craftersinternet.com

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Out of range but still in touch

By SHARLENE MYERS

For many Canadians, a vacation is a chance to get away from the phone and e-mail, lose track of time, and listen to real birds instead of the beeps and chirps from our communication devices. Venturing out to remote areas to hike, camp, swim, or sail is something of a Canadian tradition.

But for many of those who spend extended time in those remote areas, whether for play or for work, the charm of being out of touch wears off eventually. They want to know that they can get help when we need it, or stay in touch with family, or even (gasp) check into the office if necessary. Thanks to the proliferation of satellite phones, for these out-of-towners, staying in touch has never been more accessible than it is now, although it has yet to match the speed, economy and convenience of city based services.

Dominique Spragg and his wife, Catherine Bescape, had dreamed for years of a sailing trip up the coast of British Columbia, and in March of 2001, they decided they were ready to take the plunge. With a plan that would take them out of cell phone range for an extended period of time into remote wilderness areas, they were prepared to slow their lives down for a while, but not to cut themselves off completely from the outside world. So they bought a Globalstar satellite phone and signed up for service.

There are relatively few players in the satellite communications business, and even fewer with services aimed at individual consumers. Globalstar operates a Low Earth Orbit (LEO) system of 48 satellites 1,500 km above the earth's surface. According to the company's Web site, it utilizes a version of Code Division Multiple Access (CDMA) technology, which allows users to share frequencies and therefore requires lower total bandwidth, making it more efficient and affordable.

In addition to voice service, Globalstar advertises data service – e-mail and Internet access at speeds up to 9.6Kbps, using the phone as an external modem, connected to a laptop or a PDA. Spragg anticipated using the phone for voice calls, to upload and download e-mail, and to access the Internet for information like news and weather forecasts, from his Apple iBook.

"Voice-wise, I'd say it worked 90 per cent of the time, 95 per cent of the time even. And the clarity was excellent ... as good or better than digital cellular," said Spragg. "We had very little difficulty getting a signal – most of the time it worked. The only time was sometimes when you were close to cliffs or in wooded areas, things like that, it wouldn't get visibility of the satellite – you'd be out of luck."

The data services, unfortunately, fell short of Spragg's expectations. "Generally speaking we were pretty happy with it. The problem really was with the data. Short emails worked, but for some reason I never really got longer emails, like a whole page of text. And as far as logging on to the Internet to go to a Web site, it was very sporadic, and the baud rate was pathetically low, it was like 7,000 bits per second."

The couple used the phone from May to September, when they returned to a more conventional land-based home and high-speed Internet access. In spite of the disappointment, they were glad to have the phone, which they had found very useful even before they got to the B.C. coast, when their vehicle broke down and left them stranded.

"We did have the phone with us as we crossed Canada, and we broke down near Hope [B.C], about 50 km east of Hope ... and thank God we had the phone because there's no cellular signal up there. It was actually the first time we'd used it on satellite other than when I first tried it in Montreal to see if it

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worked, and it allowed us to contact the tow truck company [and] Lordco parts, order the part, have the part waiting by the time we got to the garage, everything. It came in really handy there," said Spragg.

The bottom line

The listed price for the Tri-Mode (digital, analogue, and satellite) handheld phone, made by Qualcomm and required to connect to the Globalstar satellite network, is $1,495. Airtime can cost up to $1.99 per minute, depending on the monthly package chosen.

Still, this is a bargain when compared to, for example, satellite phone services offered on cruise ships and airlines, which can cost up to $8 per minute. These services, along with many broadcast news networks, rely on Inmarsat, a system of Geosynchronous Orbit satellites – that is, they match their orbit to the earth's rotation so that they are always above the same surface location. The satellites are located about 35,600 km above the earth's surface near the equator, and communicate with land-based stations connected to local telephone networks. They are best suited for high-speed, high-bandwidth transmissions. According to Spragg, Inmarsat's Mini-M service is popular among more well-heeled sailors, who can afford the US$3,000 phones and the steeper airtime charges.

Like many technology companies, satellite communications firms face high costs and other financial difficulties. Iridium, which offers a service similar to Globalstar's, cost more than $5 billion to launch in 1998, but was purchased out of bankruptcy for only $25 million three years later. And Globalstar has problems of its own – Globalstar LP, which operates the satellite network and provides service to Globalstar Canada, has filed for Chapter 11 bankruptcy protection in the U.S. and is currently restructuring. (According to Globalstar Canada, service to its customers continues as usual.)

Perhaps all this technology will mean that one day, it will be more difficult to drop out of touch and listen to the birds. On the other hand, it might mean longer vacations.

And somehow, even working doesn't seem so bad when you can do it from the beach. ◆

JULY 2002

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Canon S820D Photo Printer

By CHRIS TALBOT

One of the most important elements in any digital darkroom is a good photo quality printer. With the S820D, Canon delivers.

The Canon S820D Photo Printer contains six ink cartridges and can print on paper sizes from 4x6-inches up to legal-size. Photographs can be printed on plain paper, or on special glossy or photo paper that Canon sells. Printing pictures on plain paper will yield good results, but the prints won't pass for anything but high quality inkjet prints.

However, switching over to photo paper will allow users to make prints that can pass for pictures printed from a negative. If you look really closely, you will probably be able to pick out some pixellation, but someone who glances at an 8x10 print made on the S820D won't see the difference.

To test the printer, I tried printing a number of pictures at 4x6 and 8x10 sizes. Some were well-lit outdoor shots and others were more dimly-lit indoor shots. The results on the photo paper were impressive. There are certainly prints among them that are worth framing or putting on a wall.

The S820D is also capable of printing photographs without the aid of a computer. CompactFlash cards can be inserted with the provided PCMCIA card (the printer is compatible with SmartMedia, Memory Stick, IBM Microdrive and SD Card, but only the CompactFlash adapter is included). An easy-to-use menu on the printer allows users to choose what size of prints they want to make from digital files on the memory card and how many prints they want of each.

Prints made from a memory card are borderless, meaning the image is printed right to the edge of the paper.

It's also possible to hook up Canon digital cameras directly to the S820D and print from the camera. According to the company, supported cameras include the PowerShot S30, S40, S330 and S200.

If you're worried about archivability, Canon says the prints made on the S820D will last approximately 25 years. This assumes the images are stored under glass with standard lighting and environmental conditions.

Digital photographers who like to make their own prints at home will find the S820D to be a quality bubblejet printer. ◆

more INFO

Canon S820D Photo Printer
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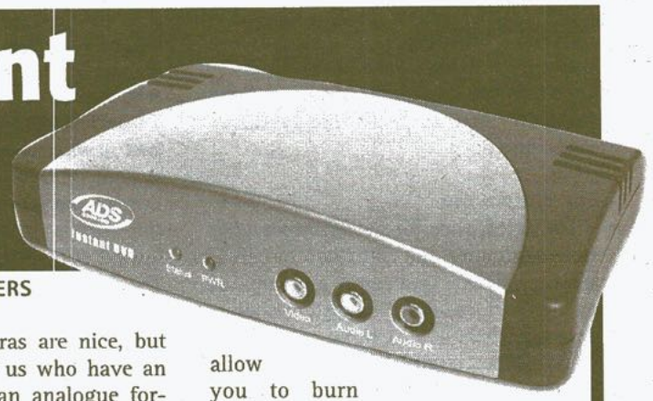

By SEAN CARRUTHERS

Yes, yes, DV cameras are nice, but what about those of us who have an older camera using an analogue format, or those who have old home videos on VHS tapes? How can we join the digital video revolution? There are a number of ways to get old analogue video signals converted over to digital video, but they're not always convenient. Many of these are hardware cards that require installation inside your PC, which isn't always convenient. Others use a USB 1.1 connection, which limits the quality of the stream you can capture thanks to a narrower bandwidth of the original USB bus.

ADS Technologies is offering one solution for users who have USB 2.0 onboard and who don't want to crack the case: USB Instant DVD is an external box that attaches to your computer via the faster USB 2.0 and can handle either composite or S-Video signal input. It can capture in full-size DVD format (MPEG-2 compression, at 704x480), which allows a large screen size while maintaining a small file size.

The package also comes with software to help you capture, edit and burn your movies. Two Ulead titles are included (*VideoStudio 6.0* and *DVD PictureShow*) as well as Sonic Solutions' *MyDVD 3.5*, which will allow you to burn your own DVDs, providing you have a DVD-writer, or VCDs if you only have a basic CD-writer.

The setup was fairly quick and the device was recognized right away under our Windows XP setup. Where you might run into compatibility problems is with the bundled software: We found these programs could be coaxed to work but were a bit tetchy – the Ulead *VideoStudio 6* wasn't listed as XP compatible at the Ulead site when we checked. In other words: The software might work if you're running XP, but it might not, so caveat emptor. ◆

more INFO

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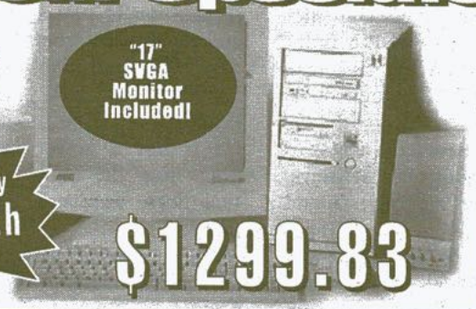

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TC GTA July 2002

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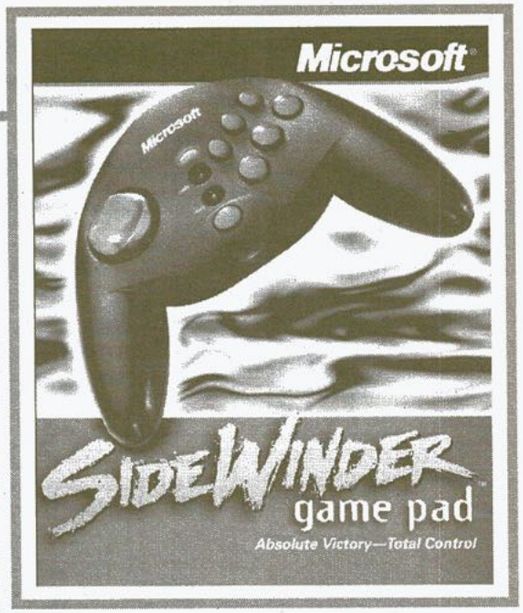
Microsoft's toys for games

By ANDREW MOORE-CRISPIN



Microsoft SideWinder Game Pad Pro

While it may look like a boomerang, let me assure you, Microsoft's SideWinder Game Pad Pro is actually a PC game controller; it's just not a very good one.

The Game Pad Pro seems to sit on the fence between controller and joystick; the digital and/or analogue (depending on the game) D-pad looks similar to the D-pad of any console game pad. However, by not deciding if it should function primarily as a mini joystick, as found in analogue sticks on console controllers, or as a directional pad, as can be found on other PC game pads, the feel of the controller is compromised.

The D-pad is also offset, meaning that to go up, you have to push the D-pad up and to the left, which takes some getting used to.

The Game Pad's eight buttons (not including the D-pad) are fully programmable, and the Game Pad Pro differs from older versions by making controller programs savable as "schemes," which differ from previous SideWinder game pad "profiles" in that they are game-specific and can be saved as such.

A shift button allows users to program twice the number of functions into the controller, to be accessed during the game by pressing shift and the corresponding button. The shift + 1-8 buttons can also be programmed to perform macros to execute keyboard commands.

Installing the device drivers and software to make the Game Pad Pro functional couldn't be easier, and since the pad connects via USB, no reboot is required.

Upon installation, users have access to about 50 bundled controller schemes, for games like *Duke Nukem 3D* and *Madden NFL 98*.

Once you get used to the layout, the game pad is functional, but for the price, one would expect that it be more than just functional.

The SideWinder Game Pad Pro goes for about $48.

Microsoft SideWinder Force Feedback 2

Now that's more like it.

The Force Feedback is a PC joystick and it makes no apologies for being such.

It offers eight programmable buttons as well as a programmable eight-way hat switch, all conveniently located, and adds rudder and throttle actions in the form of a twisting joystick and a small throttle lever on the base.

As with the Game Pad Pro, installation is as easy as can be and requires no reboot, thanks in part to the USB interface.

When you pull the Force Feedback out of its box and realize it has a power cable that plugs into the base, it becomes clear that Force Feedback isn't just a cute name.

While playing a compatible game, such as Microsoft's own *Combat Flight Simulator*, the rumbling, synced with the onscreen action, combined with the fact that the stick "fights," adds a dimension of realism to the game.

The Force Feedback 2 offers up over 100 distinct and realistic rumbles.

No word as to which games make full use of the Force Feedback 2, but it is compatible with all games that use the three-year-old Microsoft Force Feedback Pro.

With these features, the Force Feedback 2 comes with a hefty price tag of $159.99.

Both the SideWinder Game Pad Pro, and Force Feedback 2 require at least Windows 98 to operate, due to lacklustre USB support in previous versions.

(www.microsoft.com/sidewinder) ◆

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Houston M810(vga,audio,modem,lan) 95

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CeledyDraw: Power on a budget

By PETER WALPOLE

On first running *CeledyDraw*, I was struck by the similarities to *Corel Draw* –the familiar tools down the side and pre-constructed shapes along the bottom of the screen. I'm thinking *Draw* and *Flow* in one package.

While *Celedy* matches much of the power of *Corel*, this is a totally different program with enhancements and strengths of its own.

You start with a standard piece of paper selected from the Page Setup menu. Then you create a drawing using any combination of tools, including Freeform, Bezier Curve, Line or Rectangle. Each produces a line or shape that can be filled with colours, outlined and infinitely altered. Your skill will be in translating the concept in your brain onto a screen. After a few minutes I was getting the hang of it.

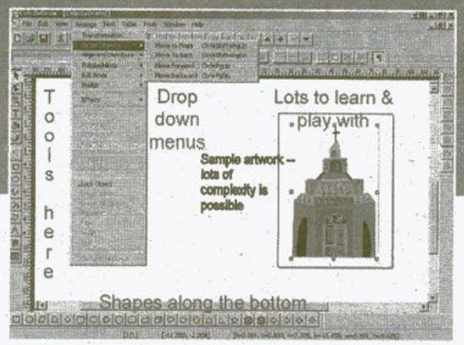
The complexity of your drawings is limited by your abilities – and the mouse. For regular drawing work I'd invest in a tablet and stylus.

For small print publications (newsletters, flyers, etc.) *Celedy* has text frames and almost unlimited creative text features. You create a frame and type in your copy. You can import copy, but it must be in ".txt" format. By playing with the selection's attributes (font, size, orientation, etc.) you can make the words appear the way you want.

This is a hugely powerful program at a $60 budget price. So, there are some features you don't get – no CD full of fonts and clip art, no documentation.

You do get a few on-disc examples of work. You will find some basic tutorial materials under Help and on the Celedy Web site, too. But to learn the program's capabilities I had to work through every tool, watching the "Tool Tip" announce each icon's function.

Since there are many possible submenu selections, this takes time. I'm sure there are program features that I've



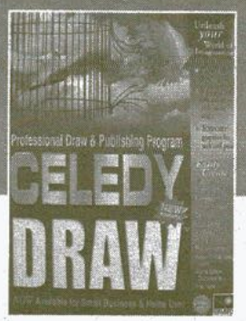
not yet found. I'd really prefer a good manual. You will not find templates, so you'll have to design your own from scratch.

You will get great company support. My boxed copy (release 1) was subject to an immediate update indicating a continuous cycle of improvements and feature additions.

I'd have no hesitation in using this product in a school course emphasizing graphic arts. It will be right at home for homework or SOHO tasks. It need not apologize to the better known (more expensive) competition. It does the job well.

End note

This is not a paint program. It makes flat drawings and simple page publications. It's ideal for creating charts, logos, diagrams and illustrations. It's useful for producing worksheets, flyers and promotional materials.



In the right hands, with some practice, you'll be producing print and web materials you can be proud of. The price is simply perfect. ◆

more INFO

Celedy Draw
$60
Celedy Software Inc.
www.celedy.com

Requirements:
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SVGA

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Share and share I like

By MARA GULENS

These days people tend to share Internet connections along with their living space. Users also migrate from one computer to another, with a specific computer, usually with a printer tethered to it, tending to be "the one." (Many households have more than two PCs, but how many have more than two printers?)

In my case, the Mac in my first floor home office, which I use for writing, surfing and finances, is "the one." Three PCs in the basement are for reviewing games, maintaining a live Internet radio connection and receiving faxes. Needless to say, our house can have up to six computers running at a given time, but we own only one decent printer.

Not surprisingly, since we started fooling around with a digital camera, the need for printing has grown. The kids are also beginning to get a kick out of colouring – and printing – pages, so it looks like the printer will become more important as time goes by.

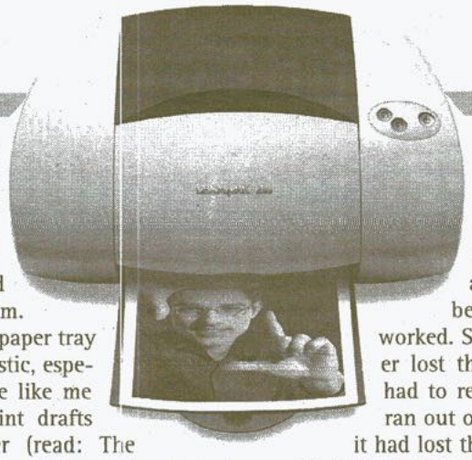
So here's a word from the girl who has had one printer on the desk beside her for over a decade: I'm never going back. Just like shared Internet connections and home networks have become the norm, so too, it seems, will networked printers.

Painless setup

Like many people (including one who saw my unopened package and said, "Oh, I have one like that that a friend promised to set up soon."), I was reluctant to set up the Lexmark Z65n Colour Jetprinter because, ouch, it's technology. But the 11-step installation procedure was painless, and presto, I was able to print from anywhere in the house.

Because the only available hub is in the basement, I've been using two printers for the past months – my regular work horse on the desk beside me and the networked Z65n in the basement.

Indeed, where to place a network printer becomes an issue. Ultimately, it's probably best beside the computer that uses it most – but what if there's a tie? So while the networked printer is very cool, I'm already fantasizing about a wireless printer I could move about with me from room to room – and out to the garden. Then I wouldn't even have to think about hubs.



In terms of looks, the Lexmark Z65n is quite sexy, with its rounded corners and compact form. And the double paper tray concept is fantastic, especially for people like me who like to print drafts on scrap paper (read: The good side of once-used paper) and good stuff on quality stock. I could even do with a third tray, for that glossy photo paper I'm beginning to use more of.

Which brings me to quality. The Z65n is super fast at printing black draft quality copies: You've hardly pressed print when the job is complete. When it comes to quality colour copies, like photo images (with 4800x1200 dpi resolution), then it's so slow you'll think it's stuck. But from the mini lab test I ran, I found the results good enough to stick in a photo frame and certainly leagues beyond my old inkjet. Yet the enticement of a real photo printer remains.

The only downside of this printer, apart from the fact it wasn't sitting on the desk beside me, were the problems that occasionally arose from the Z65n being, alas, networked. Sometimes the printer lost the IP address and I had to restart, other times it ran out of paper and told me it had lost the IP address.

Most likely this was the dynamic IP addresses getting the print drivers confused. But since I'm one of those people that likes to use technology, not continually mess with it (that includes reading manuals), I'm happy to report that for the most part, turning things off and on and restarting always cleared up the problem. ◆

more INFO

Lexmark Z65n Colour Jetprinter
$299
Lexmark Canada
www.lexmark.com/Canada

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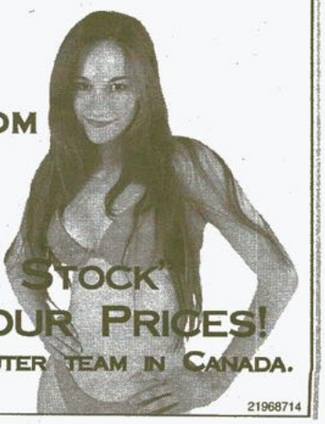

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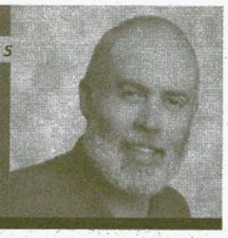

Alan Thwaits

The World Is My Cubicle

Safe computing, someone once said, is a lot like safe sex. The way we think about computing has changed a lot over the years – just as the way we think about sex has changed a lot.

If you think about it for only a minute or two, that makes a lot of sense. If you exchange body fluids with someone else, there are likely to be consequences. Similarly, in the world of personal computing, if you exchange data with someone else, there may very well be consequences.

Things weren't always like that. (We're talking about computers now.) Back in the early days of the PC, both technology and the world it was part of worked differently.

In the beginning, the personal computer was simply a tool – though a pretty marvellous one – for doing any number of tasks for one's own purposes. Those tasks may have been as mundane as assembling a library of your favourite recipes or creating a spreadsheet or database for your classic car club. But the personal computer made those day-to-day tasks easier, or at least less tedious. There were a fairly limited number of applications available to do those tasks, though, so the world of personal computing was still fairly limited.

Then came the first stage of the revolution. As more people discovered the capabilities of the PC, exciting things began to happen. First, it became possible to do more with the PC. Word processors and spreadsheets still made the world go 'round, but the software universe started to grow into the powerhouse it is today, with literally thousands of applications available to the ordinary user. Some were commercial applications, but others were of that wonderful species known as shareware, created by users for users, and distributed on a "try before you buy" model.

Now the cat was out of the bag. If the early PC had been like a room in which the user could hunch over a desk in a small space to do some work, the newer PC was a big house, in which the user could have separate rooms for work, play and experimentation. The walls grew farther apart, the furnishings got fancier and occasionally you could look out the windows to catch glimpses of an even bigger, more complex world.

The amazing thing was, it wasn't hard to make the house bigger. The software industry was exploding, and the temptation to try any and all commercial and shareware programs was almost overwhelming. I, for one, found it virtually impossible to come back from a computer show, a club meeting or even an encounter with a fellow enthusiast without bringing with me a handful of floppy disks with new applications to try out.

Is this when the world started to change? In those days, hardly anyone considered the possibility of being hurt by all that "promiscuous" sharing. In fact, it didn't seem irresponsible at all. We were simply members of a community that shared resources; enthusiasts in a new venture that was making life more interesting and more enjoyable. I don't remember ever worrying that running the Setup file on the floppy I got at the computer club meeting would do anything harmful to my system. And the word "virus" was never mentioned in the context of technology.

How very innocent and naive those words seem now.

Soon enough, the Internet came along, and not just the world, but the very foundation of personal computing changed. If the house that had been my world of computing had recently grown bigger, now the walls were knocked down completely. Adding a modem and a cable to a telephone connection meant that I could, literally, see for miles and miles. Distance was negated. Time zones became irrelevant. If that weren't enough, the PC itself became more powerful. Hard drives became larger. The combination of size, power and connectivity meant that my computer was now open to a dataflow that was large, changeable and in many ways unaccountable.

Now, of course, new viruses appear at the rate of hundreds or thousands each

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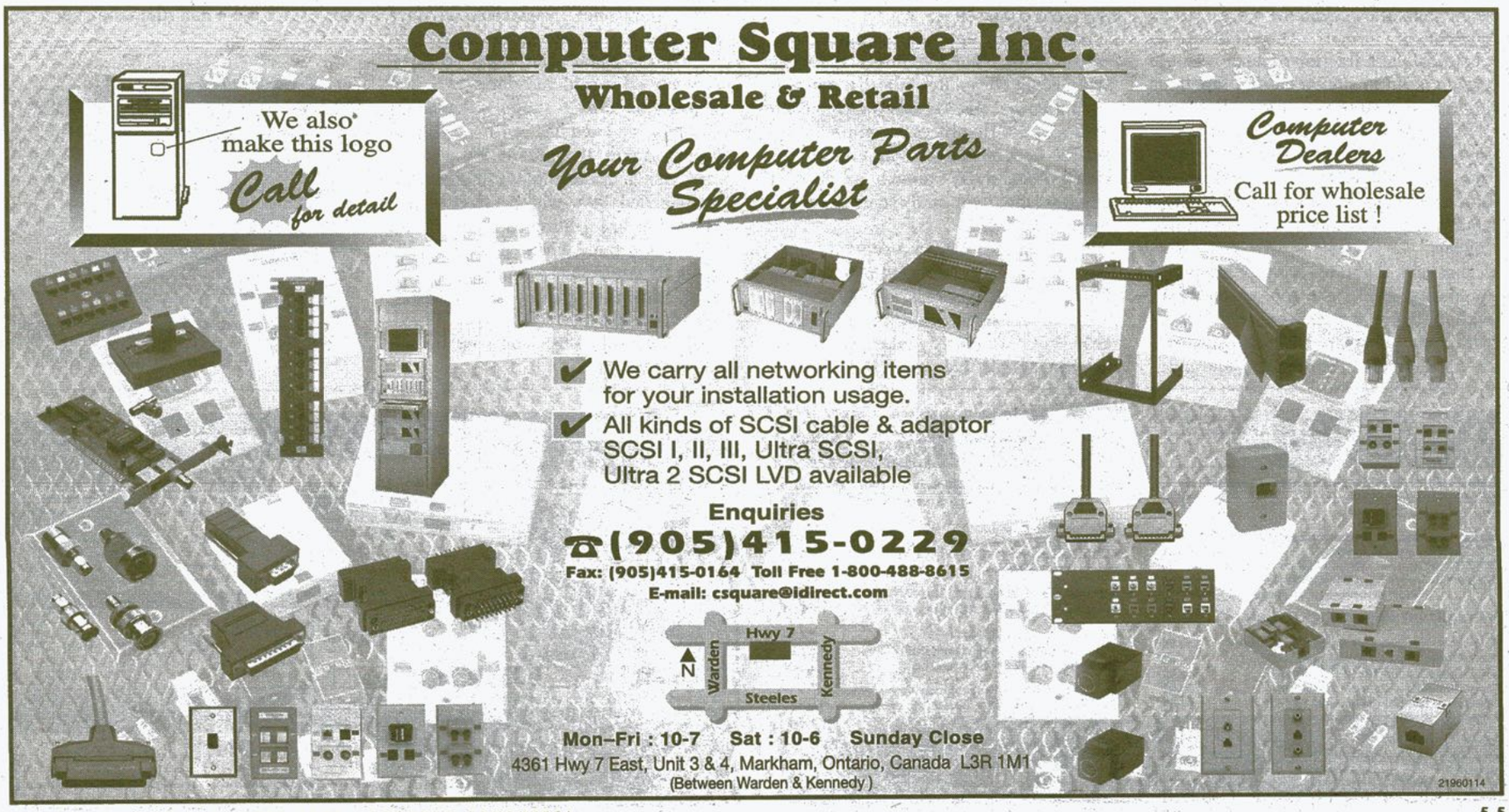


Final Cut Pro 3: To edit like a pro

By DANIELA STRANSCAK

Not too long ago, my ex-boss was trashing some old film editing equipment to make room for the newfangled technology. Among the rubble were vintage gems like a Moviscop viewer and a 16mm film splicer. Having just graduated from film school, and convinced I'd hit the jackpot, I salvaged what I could. However, I was green and broke, so putting this hodgepodge of rescued equipment to practical use was unrealistic at best. I could only dream.

The ability for mere mortals to afford (albeit still in installments for some of us) all the technology we need to produce our cinematic visions was unthinkable even a couple of years ago. The exciting news is that these tools are constantly improving, coming down in cost and quickly bridging the gap between amateurs and professionals. With high-end DV cameras and powerful tools like Apple's *Final Cut Pro 3* (*FCP 3*), people with ideas and a certain level of skill actually have a shot at realizing their moviemaking potential.

If you're not familiar with *FCP 3*, it's a professional, non-linear editing software that allows you to work with a number of formats. This software is obtainable at a fraction of what it would cost to perform similar editing functions in a pro edit suite.

This stuff is pretty high-end, so you're severely overspending if you are only interested in editing the occasional home movie of the family reunion. Save your money and stick to something like *iMovie*.

That said, if you're seriously interested in editing, *FCP 3* is a top option. Users with different needs, who are working with diverse formats, are embracing *FCP 3* – pro editors, documentary and independent filmmakers, animators and high-end amateurs.

Although its interface has remained pretty much the same, version 3 offers a lot of new enhancements compared to its predecessors. The list is really lengthy, but here are some features that stand out most.

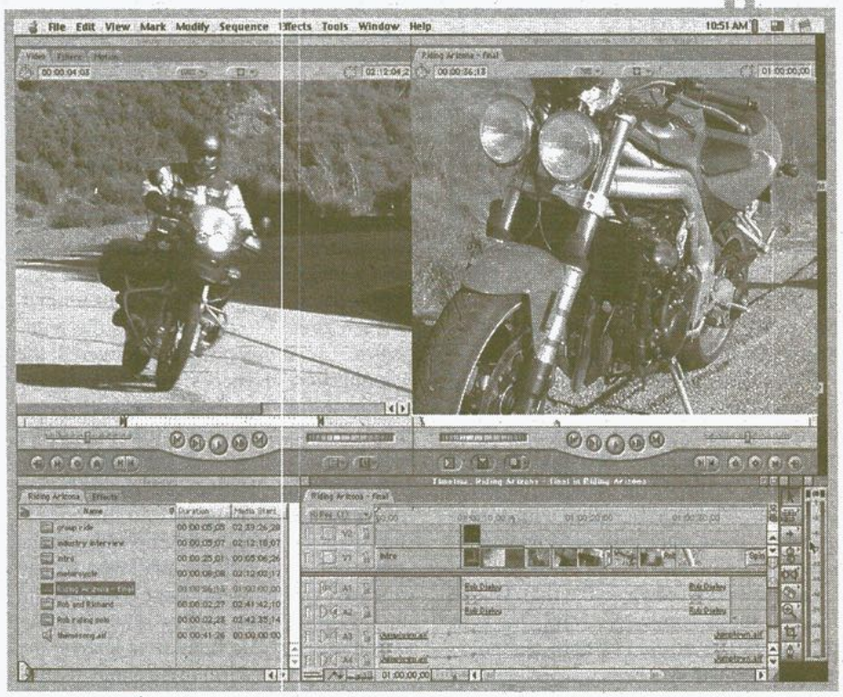
First is the G4 real-time effects preview, which shows how your chosen effects will look in real time. In the past, you had to render all effects, taking up a lot of time and patience. Many professional effects are achievable with *FCP 3*.

Colour correction is another addition that makes this version of *FCP* invaluable. For example, if your footage was shot under different lighting conditions, the colour correction option helps you maintain a uniform look and will ensure your project is broadcast safe.

OfflineRT allows you to capture your material at a low resolution, giving you nine times the storage capacity. This translates to 40 minutes of time-coded footage to work with per gigabyte of space – very attractive to those who crave portability. Using a PowerBook G4, you can work and create an EDL (Edit Decision List) anywhere, including the local coffee shop.

To allow for optimum capturing and editing with *Final Cut Pro 3*, the basic setup is not cheap. Realistically, you will need a Power Mac G4 or PowerBook G4 with a 500 MHz processor minimum (to get the benefit of real-time effects preview). Also, a DV camera or deck, a monitor (or two) and some external speakers, at least.

If you need to deliver a superior quality product, you're working with various formats, and speed is crucial, you'll want to consider acquiring additional gear. For example, you'll want more external storage (you want to keep your internal drive as clear as possible) and an NTSC monitor. An NTSC monitor is important to see how your video will really look once broadcast, because what you see on your computer's display doesn't equal what you'll be viewing when all is said and done.



Final Cut Pro 3 supports keyboard shortcuts and comes with keyboard stickers. Again, if you're doing a lot of work, using an editing keyboard with colour-coded keys will be most desirable. Keyboard editing is speedy, and that's important when presenting to clients (if you're lucky enough to have them). Not the time to be fumbling through menus.

FCP 3 runs on OS 9 and now for the first time on OS X.

This is just touching on what *Final Cut Pro* is all about. There's so much more to tell, so check www.2-pop.com, a resource for *FCP 3* news and discussion. ◆

more INFO

Final Cut Pro 3
$1,599.00
Apple
www.apple.com/finalcutpro

Requirements for real-time effects:
500-MHz or faster single or dual processor
Power Mac G4 or PowerBook G4
Mac OS 9.2.2 or Mac OS X v10.1.1
QuickTime (included)
356 MB of RAM
40 MB of available disk space required for installation

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AMD Athlon XP-1900+	$1349.99	or $58/mth
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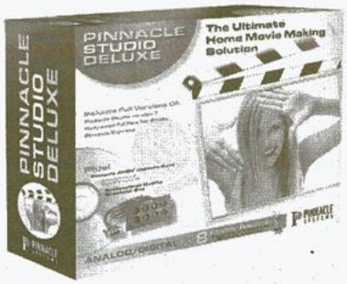
Pinnacle makes a *Deluxe Studio*



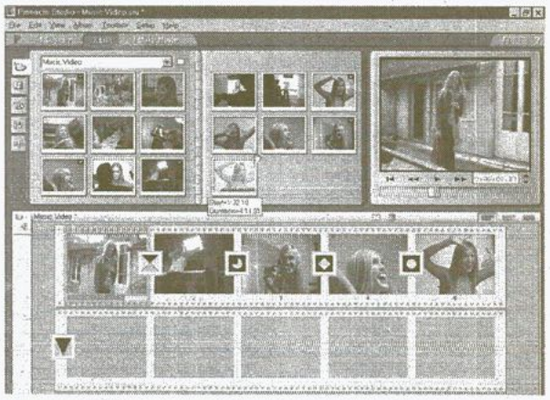
By NESTOR GULA

In the not-so-distant past, video editing was very complex and time-consuming. The advent of desktop video editing has made it accessible to many, but it still has not made the breakthrough into the consciousness of the general videotaping public. At a recent public event I asked several people who had video cameras stuck to their hands if they edited their raw footage. It was rather depressing to find out that only one person edited his videos, although two guys did express the desire to do so – if only to manage the stacks of videotape languishing in the basement.

No doubt the reason that video editing has not caught on with the mass public is the perceived notion that video editing is still very complex. Think of the introduction of desktop publishing to the personal computer in the mid to late '80s. What is missing in the PC world is a killer application for desktop video like *PageMaker* was for desktop publishing. The Apple Macintosh has this killer app, Apple's own *iMovie*, and many people who have this program and a digital video camcorder do edit video – the one person who admitted to doing some video editing used this program. The lack of a killer app is just one of the barriers of video editing on a PC. All new Macs come with FireWire (IEEE 1394) ports as standard equipment, but you need to install them on most PCs.

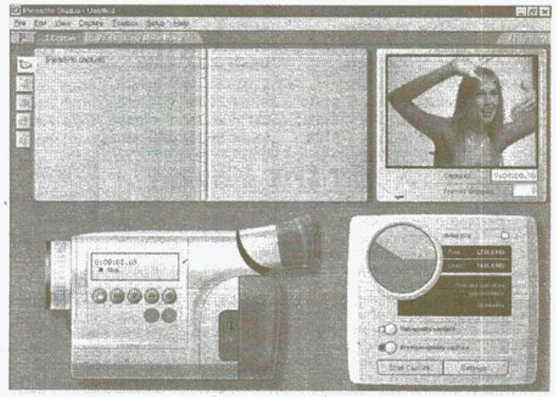
Pinnacle Systems is a leader in video editing solutions for the PC platform. In the past they have produced video editing solutions for the beginner, for the pro and for everybody in between. Their latest bundle, *Pinnacle Studio Deluxe* (*PSD*), intends to be the bridge between entry-level video editing suites and professional editing packages. This package comes fully loaded with everything you need to set your computer up as a video editing workstation. There are several components to *PSD*.

On the hardware side, you have a PCI card with two FireWire ports for connecting DV cameras or decks. You will not be able to use other FireWire devices like hard drives with this card. The great thing about the *PSD* package is that it comes with a breakout box that lets you convert all your old analogue tape to digital format. The breakout box has S-Video and composite video input and outputs. Stereo audio inputs and outputs are located on the breakout box, as well. This is the same breakout box that is included with Pinnacle's upscale DV500 package.



The core of the software side is *Pinnacle Studio Version 7*. This is a very easy-to-use editing program. It is divided into three sections: Capture, Edit and Make movie. The capturing interface mimics the controls of your DV-cam so it is simple to use.

The editing section has some pluses and minuses. You have three ways to create the video: Storyboard, Timeline and Text view. The first is useful for quickly placing all the elements down. Timeline gives you the most editing power. You see the position and duration of all the video clips and the transitions (74 are included with the package) you can throw in between them. As well, you see all of the different tracks you can use – background music, sound effects/voiceovers, title overlays and the original audio track. You can erase the original audio track and put other audio tracks here (this is tricky, though), allowing a total of three audio tracks. As with most non-professional video editors, you only get one video track. You drag and drop the video clips, transitions and special effects. Nothing could be simpler.



You can output your masterpiece to tape, as analogue to a standard VCR or digital; or create AVI, MPEG, Windows Media or Real Video files. There are a lot of options within these files to customize the output. There is even an option to upload your video directly to Pinnacle's Web site.

PSD comes with *Pinnacle Express*, which is a DVD/VCD authoring program. Once you have saved your video in the appropriate file format, you can burn a DVD or VCD that can be played in just about any DVD player. Also included in the *PSD* package is a copy of *Hollywood FX Plus*, which is a video effects program.

Offering flexibility and depth, *PSD* is a great solution for the digital video hobbyist. Simple to learn and with enough meat to keep most budding videographers happy, *PSD* fills the gap between entry-level and professional digital video editing programs. The whole package costs $539, but you can buy individual components, as well. *Pinnacle Studio Version 7* costs $139.95 without the capture card and $189.95 with it. (Unfortunately, the breakout box is not included.) *Pinnacle Express DV* is available for $69.95 without a DV card and $139.95 with one. ◆

more INFO

Pinnacle Studio Deluxe
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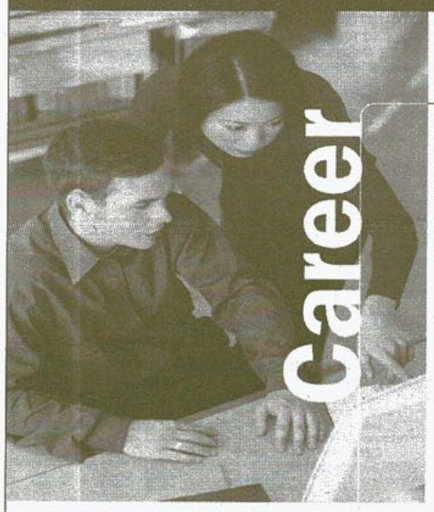
www.pinnaclesys.com

Requirements:
Minimum — 300 MHz PC, Windows 98SE/ME/2000/XP, 64 MB RAM, DirectX compatible VGA board and sound card, CD-ROM drive, mouse, speakers

Recommended — 600 MHz PC or faster, Windows 98SE/ME/2000/XP, 128 MB RAM, nVidia GeForce 2 or equivalent 3D graphic accelerator card, DirectX compatible sound card, CD-ROM drive, mouse, speakers, secondary hard disk dedicated to video capture capable of sustained throughput of at least 8MB/sec



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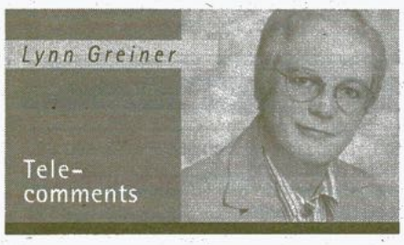
Wireless networks are open by default



Years ago, a household with a single car in the driveway was seen as privileged. Then, gradually, one car became standard and two car households began to be more common. Now they're almost the norm, and some families own more than that.

Similarly, computer ownership has moved from the single-machine-as-a-luxury phase, to the point where almost a third of households now own more than one system.

And that, say vendors, is the driver for what they insist will be an explosion of wireless networking in the home.

Networking is something that can help any multi-computer environment function more efficiently. Users can share files and peripherals like printers, and can all use the same Internet connection (perhaps with a few extra bits and pieces). But a network can be a pain in the neck to implement. It may involve dismembering computers to install network interface cards (NICs) and finding ways to run unsightly wires from machine to machine. It may make it difficult to rethink machine locations because of those wires. And that's where wireless networking comes in.

Until recently, a wireless network was too expensive and too complicated for the average home user to even contemplate.

Instead, vendors tried to push things like networks that transmit data over the home's phone or power lines, or wired networks that rely on USB devices instead of standard NICs. They still weren't cheap, but they were somewhat easier for users to set up than networks that rely on cabling and NICs.

Fast forward to today and you'll see that, although wireless networking isn't exactly bargain basement stuff yet, it is down to half the price it was a year ago. And it's easy enough to handle that users (those of my acquaintance, at least) are less afraid to try to install it. In fact, they're embracing wireless with enthusiasm.

The trouble is, with current standards, plugging in a basic wireless network installation is akin to leaving your house's front door unlocked. There is, by default, no security whatsoever. The technology is there, to be sure, but the standard dictates that it be disabled in a default installation – a fine example of a committee at work. And, as we all know only too well (since we're all probably guilty of it), most people tend to perform default installations of products, and they usually don't bother reading the manual.

That means that these handy wireless networks that let you take a laptop into the back yard and surf the Internet while basking on the deck are also giving everyone in radio range an open door into your home network and free access to your Internet connection.

If it's a problem for home networkers, it's even worse for businesses. Security experts have told me that, in some cities, there are so many unsecured wireless networks that, if you walk down a major street with a wireless-enabled laptop, you can connect to a dozen or more in just one block.

Small businesses are especially vulnerable. They don't have IT departments and have discovered that installing a wireless network is often cheaper and easier than running wires. And if they perform an out-of-the-box installation of their wireless network, they're wide open to intrusions.

The solution is simple: Until the standard is revised to enable security from the get-go, you have to make that extra effort to poke through the instructions and make sure to turn on encryption of your wireless network's transmissions (and, before you buy, you have to make sure it is capable of encryption). Furthermore, you should make sure that your wireless equipment is capable of 128-bit encryption, not the 40-bit that is built into the wireless 802.11b standard (a version of the standard with improved security is still under construction). It will limit your choices somewhat, since some of the improved security is proprietary (which means you could be stuck with a single vendor's products), but your network will be better protected. ◆

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Fun in the sun

By MARA GULENS

"It's summer!" scream the kids. "Time for fun and sun!"

"It's summer," groan parents. "How do I provide maximum fun, yet keep you safe in the sun?"

Here's inspiration on how to make summer days memorable and deal with things like bugs and UV rays.

Bubble blowing in Bubbletown

Along with sidewalk chalk and the sandbox, bubble blowing gets marks for being an extremely cheap, fun activity. But we're not just talking bubbles created with 99-cent store-bought sudsy liquid and plastic bubble-blowing devices. We're talking massive bubbles the size of TV sets that remain suspended in the air until you lower them yourself.

Bubbletown (www.zurqui.com/crinfocus/bubble/form.html) is the main source for the secrets to success. Find complete instructions on how to mix the perfect bubble-blowing formula, how to make bubble-blowing devices and ideas on what to do with bubbles at night.

Once you've mastered the technique, head over to Childfun (www.childfun.com/themes/bubble.shtml) for a zillion extended ideas for kids of all ages, including how to make coloured bubble formula, a variety of bubble songs and activities, including dancing bubbles.

Sing a song of summer

Chances are if your children are attending any sort of summer camp, they'll be singing songs – and asking you to sing along with them. If you sort of remember the tune, but have totally forgotten the words, check out the Campfire Sing-Along (www3.sympatico.ca/cottagecountry/dir-cam.htm). You'll find lyrics to all the favourites, from "The Ants Came Marching" to "Zippity Do Dah."

It's gross, but it's fun!

Head to the park or let your kids loose in the back yard on a rainy day and soon enough they'll start collecting worms. If having some knowledge helps mask your parental dislike of those little rubbery thingies, head over to yucky.kids.discovery.com/flash/worm/index.html for background information on earthworms. Meet Mary the Worm Woman, watch the birth of an earthworm video, and learn how worms are recyclers.

What to do in Toronto

Besides the summer fun stuff we can do in our homes, gardens and parks, Toronto is the place for a zillion great summer outdoor activities. For a complete listing of summer camps, sports and public pools, try www.e-kidstoronto.com/ekids/summeractivities.htm. There's also links to all those great seasonal amusement parks, like Canada's Wonderland and Ontario Place.

For a general listing of all Toronto festivals and events, parks and sports venues, click on www.city.toronto.on.ca/links.htm. It's here that you can coordinate a 60-day fun-packed summer schedule and wonder how anyone could ever say, "there's nothing to do."

Stay away from my dermis

Parents of the sun-was-safe generation often have a tough time accepting that the sun's rays are, in fact, dangerous. Take the sun test at www.sunprotection.org to figure out your skin type and what kind of protection you need. Learn how the sun affects your skin and why that's bad. Check out the glossary so you can understand all those stories about "dermis."

Wise in the woods

"Remember, only you can prevent wildfires." Those are the wise words of Smokey Bear, and are good to remember while embarking on camping trips this summer. The site www.smokeybear.com makes an effort to educate about forests and one of their greatest threats – fires. Teach kids Smokey's Match and Campfire Rules, play some flash games, access bear facts and choose from some great colouring pages.

Ouch!

No surprise www.mosquitoes.com belongs to the company that makes Off repellent, but it's worth visiting the Mosquit-O-Meter to check out how attractive you are to them little critters. Best here is the resources section for some background on all those nasty bug-related diseases that seem to be popping up in southern Ontario.

What's a site you'd recommend for kids? Let me know at maragulens@yahoo.com. ♦

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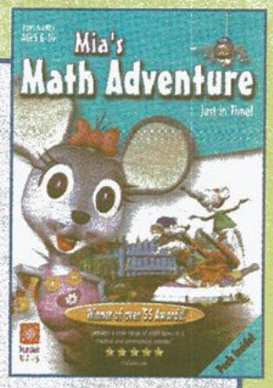
Mia is just in time for math

By MARA GULENS

It's great to see Mia, the loveable little mouse from Quebec, back with a third title. Mia is rich in both visual and auditory presentation, and the first two games were a wonderfully creative departure from much else that is available these days.

Starring in a series, however, puts Mia in a new category. She may have been new and unfamiliar when Romaine stole her hat, but we now know her and are less forgiving of



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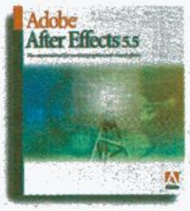

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Send your entries to: Toronto Computes!, Digital Video Contest, 625 Church Street, Suite 600, Toronto, ON, M4Y 2G1 Attn: Editor

Mia just in time for math

continued from page 62

the little quirks. Don't be mistaken: Mia is as cute and adorable as ever, but the "mouse that follows the mouse" should no longer be going around in circles. That is to say, when it gets too hard to figure out what to do next, or if she doesn't respond to the cursor like she should, kids will get frustrated and leave Mia to do it on her own.

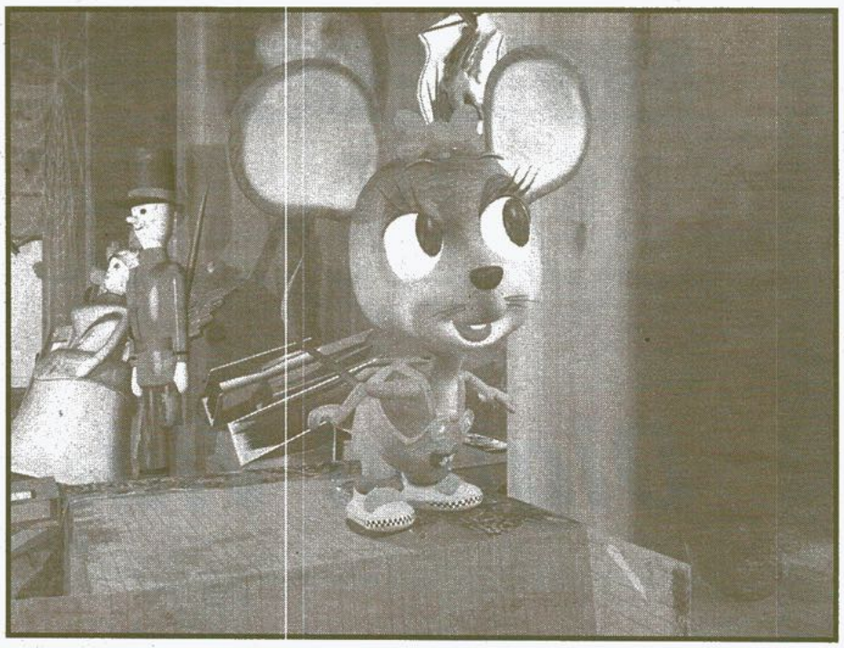
Like the previous title, *Mia: Just in Time!* starts out with an emergency. A fire breaks out in the attic and all the inhabitants are forced to flee – including the politically incorrect wheelchair-bound grandmother. After the opening scene, the game plunges into the mission: Mia must find the parts needed to create a time machine so she can avert the disaster. En route, players get to work on various math activities and collect sparklies – the magical equivalent of fuel.

Much like the *Zoombinis* software titles, *Mia: Just in Time!* gets kids using numbers by keeping them blissfully unaware that they're doing so. All told, kids will by playing work on addition, subtraction, multiplication, division, geometric shape recognition, fractions, number recognition and sequencing, measuring, equations, estimation, strategy and logic. Whew!

The game can be played at four levels, and while level one is doable by the 6 to 10-year-olds this game is intended for, the higher levels definitely require advanced math proficiency. For example, in the Mini Mole activity, kids have to identify shapes, ranging from "triangle" in level one, to "convex polygon, no right angle" in level four. Too tough for me, Mia, but then, math isn't a daily endeavor anymore. In the Magic Eye activity, players have to connect numerical dots – which gets so complex they'll have to write down the numbers to catch the sequence.

Players cannot switch levels mid-game; however, they can hit F12 to win (read: Cheat) without playing. Other great games include the Clock activity that really challenges understanding of days, hours and minutes, and the Frog activity, which has kids click the requested temperature on a thermometer.

Much like the earlier titles, *Mia: Just in Time!* relies on players hitting F1 to see what's in Mia's knapsack, F2 to review options and F3 to save. I have a love-hate relationship with this feature (which is also used in, for example, Freddi Fish games). While it lets you save various gameplays and lets you go back and play differently if you screw up, it's a bother for kids who are engrossed in the game and don't want to think about saving.



The most amazing aspect of *Mia: Just in Time!* is the seamless interweaving of movie sequences, games and movement – which are also probably the reasons why the game occasionally stumbles. Take, for example, the secret passage. Once Mia puts on the miner's hat, she has a beam of light that lets her find her way through a labyrinth of tunnels. It's like a flashlight and all you see is what Mia sees.

One of the most fun aspects of the game is that players get to feel like they're in control. You guide Mia from point to point by placing the cursor in the direction you want her to go, or get her to ride (and even do flips) on her skateboard. Often Mia will ask, "where do you think we should go?" – and it's up to the player to decide.

Unfortunately, however, Mia is not always consistent and sometimes it's almost impossible to figure out where to go. When this happens, the online hints come in handy, although even that didn't do much in helping me find the spoon. As I write, Mia is still hanging out in the kitchen, tapping her toe, waiting for the game to move on ... ◆

more INFO

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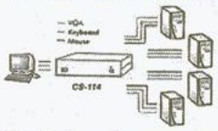

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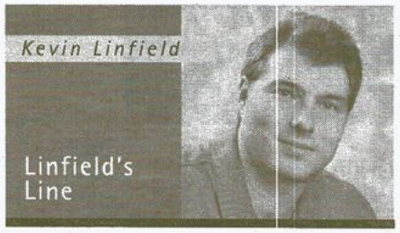
COLUMNS

Favourite Palm games



While waiting for the bus, as a passenger in a car, or even in line at the supermarket, playing games on your handheld offers a relaxing way to pass the time.

Here is a partial list of games I have on my Palm PDA that I recommend others take more than a brief look at – tried, tested, and guaranteed to waste a good portion of your time. I've indicated whether these games are freeware or shareware, and if a colour (C) version is available. Most of these programs can be downloaded from either PalmGear (www.palmgear.com) or www.freewarepalm.com.

BridgeOC 1.4k (freeware, C) is an excellent implementation of the challenging card game. It features many settings for optimizing how the computer players play and provides excellent online help and hints for learning the game.

Cribbage 2.1 (freeware) is the classic game of cribbage. Playing against the computer is a good way to learn the game and brush up on your addition skills.

Rally 1000 4.2 (freeware, C) is the classic road race card game Mille Bornes where you compete against the Palm to reach the destination first.

WorldWar 1.0 (shareware US$15, C) is a turn-based strategy game of global conquest based on the board game Risk. Each game can have up to six players (any combination of computer and/or human) and features three levels of computer difficulty. Highly addictive.

Space Trader 1.1.2 (freeware, C) is a complex space trading game where you start with a small spaceship and try and earn money by trading, fighting pirates, or becoming a pirate yourself. A very addictive game you can play for many hours, and it features multiple skill levels and detailed built-in help for every screen.

Bejeweled 1.51 (shareware, US$15, C) is a jewel matching game where you try to get three (or more) of the same jewel type in a row to remove them from the board. Very simple to play but very addictive as you try to maximize matches.

Strategic Commander 1.0 (shareware, US$15) is a space battle game with ties to *Master of Orion*. Build spaceships or factories and try to conquer the galaxy (www.zindaware.com).

Heli Rescue 1.1g (shareware US$8, C) is a clone of the old *Choplifter* game I played in the early 1980s on my Commodore 64. In this game, you fly your helicopter across enemy terrain to rescue your comrades imprisoned in the enemy bases.

Agent-Z 1.0i (shareware US$8, C) draws from the classic game *Mission Impossible*, where you play an ace secret agent who must recover stolen microfilms from evil enemy agents.

Zap!2000c (shareware US$15, C) is one of the best action/arcade games for the Palm. With stunning graphics, excellent sound, and multiple waves of challenge, it can keep you entertained for hours. Control your spaceship and shoot anything that moves to collect bonus points and weapon upgrades.

Yahdice v 2.01 (freeware) is a feature-rich clone of Yahtzee. You can play both solitaire or in a group of up to four players. It features the original Yahtzee rules, a high score list and hints as to which box to score.

SmallWare Solitaire Free 3.5.2 (freeware, C) consists of three solitaire card games: Klondike (deal three), Demon and Baker's Game. All games feature statistics and the ability to cheat (if necessary).

Pyramid Solitaire 5.2 (freeware, C) is a solitaire game where the primary goal is to make pairs totaling 13. There are four difficulty levels and the game keeps high scores as well as game statistics.

Space War 3.0 (freeware, C) is a *Star Trek*-themed fun and addictive space combat game that you can play against the Palm or with your friends. Rise through the ranks and upgrade your starship while you wage war against the enemy.

Backgammon 3.1b (freeware, C) is a well featured version of the classic board game. You can play against the Palm or another human player and it supports doubling, hints, as well as beginner and advanced skill levels.

Personal e-mail to Kevin Linfield can be sent to linfield@rocketmail.com. ◆

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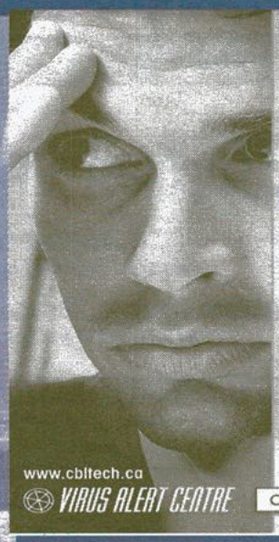

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Effects aside, film still rules

continued from page 10

photography George Vale, remain excited about the possibilities for digital production beyond mere image capturing and transfer duties. Where previously, professionally editing film and video required Avid machines costing upwards of $150,000, the introduction of tools like *Final Cut Pro* and high resolution video cards (yes, like that nVidia GeForce you're currently using to play video games) make the same work possible for tens of thousands less.

"And this has only happened in the last two years," remarks Vale. "What's happening is the creative power is moving from the big guys to the individual, and it's incredible."

And what was it that Agent Smith said in *The Matrix*? Something about the "sound of inevitability?" Says Sharpe Blackmore's McClimond, "You start looking at a lot of the younger creatives that are coming through the business, they're going to be looking for that cutting edge stuff and they're going to see that on video versus film and they will set the trends for sure."

"I think some of the [video] tools on the high end side are starting to look really good," says Topix's Taillon. "It's a little different but that doesn't mean it's not as good [as film]. It's a different sense of aesthetics. I think that the main key will be when the younger directors of photography and camera people arrive who probably will get to be trained in both film and high definition, high-end video. Then there will be a difference." ◆

How things have changed ...

continued from page 55

passing day. We worry about encryption, about authentication, about firewalls. Hacking has been elevated to the status of terrorism, and some pundits seriously worry about the world's economic system being brought down by a squirt of malicious data.

Fair enough. We're older and wiser now. Maybe a little sadder, too, because the old innocence has gone. But that's part of the price of getting older, isn't it? Technology always has to adapt to a changing world, just as human beings constantly have to change the way they think. It's a funny old world – and a very different one from the world we used to know.

Alan Thwaits, a *TC!* Contributing Editor, is a freelance journalist who writes about computer, communications, and business technologies. He can be reached at praxis@pathcom.com. ◆

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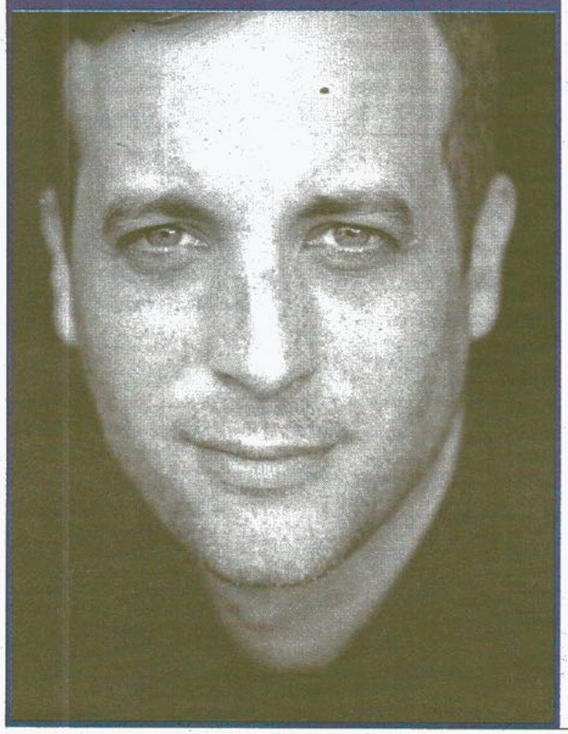

The Leafs' quest for Lord Stanley's Cup may have come to an unpalatable end for ... the 35th year in a row, dammit, but amidst the sometimes spotty play, there were some consistencies to be found elsewhere – good commercials. Viewers who stuck around during breaks and between periods saw one of the funniest – and most cleverly patriotic – ads to ever air in this country. It involves preppies, Canadian spirit (beer) and a pet beaver. If you've seen it, you know what we're talking about. If you haven't, you can check it out here: www.iam.ca/beaver/. The man heading the creative team that produced the now classic spot? Glen Hunt, vice president/creative director at Bensimon-Byrne D'Arcy.

Who: Glen Edward Hunt, vice president/creative director, Bensimon-Byrne D'Arcy

Computer now used: Macintosh Powerbook G3

Computer first used: Apple Macintosh. "The one with the rotary crank."

Favourite computer: The brain.

Other technical gadgetry in use at this time: Ericsson cell phone, Visor Handspring, Canon digital camera, blender.

Do you use your computer for play? "I did, but I became addicted to *Duke Nuke 'Em* and had to go through rehab. I'm much better now."

Best thing about the technology you have: "It hasn't figured out how to enslave me."

Worst thing: Me.

What can't you live without? "Air. I can pretty much live without everything else."

Is there anything you think you need? "The brain of a four-year-old and the patience of an 80-year-old. That and a shiny new G4."

What frustrates you the most about technology? "Figuring out what to buy, where to buy it and why I need to buy it in the first place."

Personal take on issues dealing with technology: "I'd be more curious about technology's personal take on issues dealing with me." ◆

–Samson Okalow

1ST EVER COOL TUNES CONTEST presented by Toronto computes! The technology lifestyle magazine

WINNERS WILL RECEIVE RADIO AIRPLAY ON NEW ROCK edge 102

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RULES AND REGULATIONS

1. You may submit up to three (3) original compositions. Each composition submitted must be your own original work. Compositions may not exceed five (5) minutes in length. A completed and signed application must accompany each entry. Contestants must submit all entries in MP3 format and burned on a CD. CDs will not be returned. Compositions previously recorded and released will be disqualified. Compositions using samples of previously recorded material will be disqualified unless accompanied by a release waiver from the original artist.

2. This contest is open to amateur unsigned acts. All genres of music will be considered. Employees and families of *Toronto Computes!*, its parent company, subsidiaries and affiliates are not eligible. Contestants must be Canadian citizens or have landed immigrant status.

3. Winners will be chosen by a select panel of judges and will be judged based on melody, composition and lyrics (when applicable). The quality of performance and production will also be considered.

4. The first place winner will have first choice from the prize pool. The second place contestant will have the remaining prize. Honourable mentions will be awarded as the judges see fit.

5. By submitting compositions and the signed entry form to this contest the entrant claims that their composition is original work and he/she holds all rights to the composition. The contestant also agrees to give *Toronto Computes!*, its parent companies and subsidiaries the non-exclusive right to use the compositions for future advertising and publicity purposes without additional compensation for a period of two (2) years from the date of thecontest's closing date.

7. All entries must be postmarked by 5 PM EST August 2, 2002. Winners will be chosen by August 16, 2002. Winners will be contacted for their choice of prize. Results will be announced in the September issue of *Toronto Computes!*

8. All decisions of the judges are final.

9. Mail entries to *Toronto Computes! Cool Tunes Contest* 625 Church St., Suite 600, Toronto, Ont., M4Y 2G1

APPLICATION FORM

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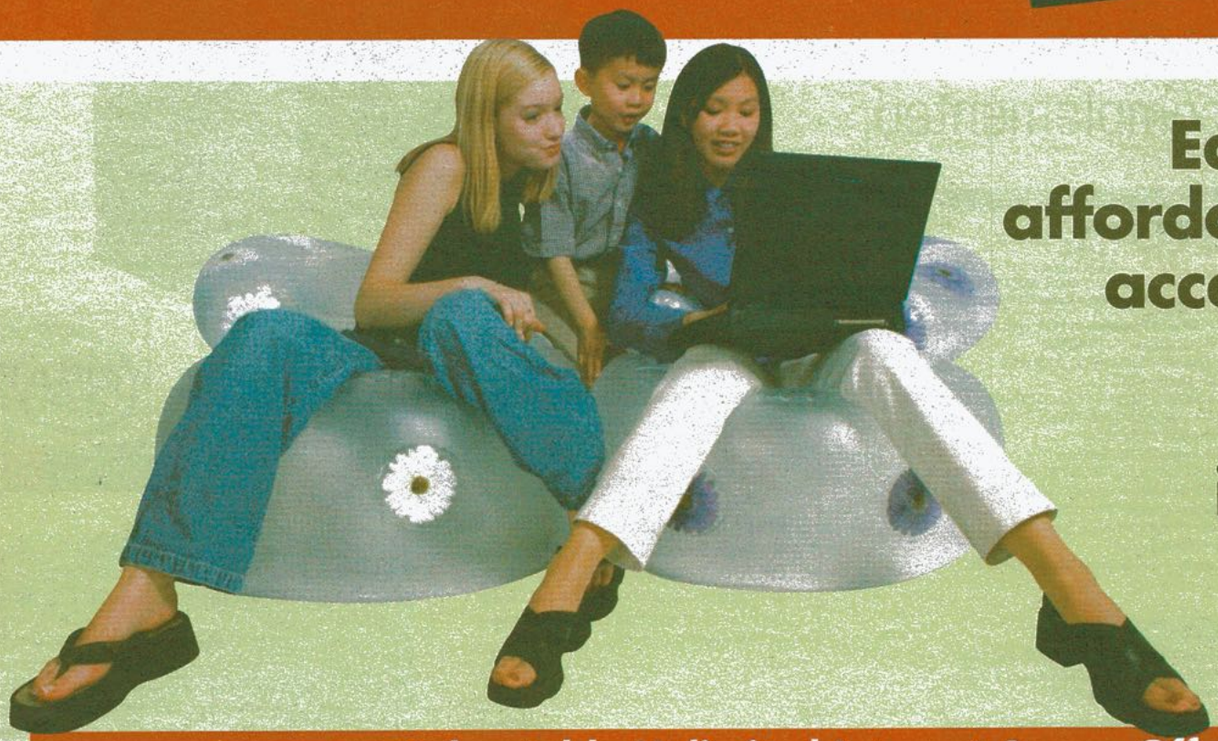

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